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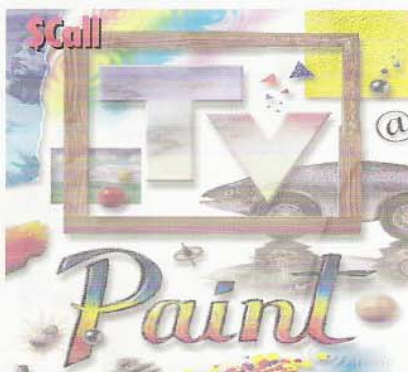
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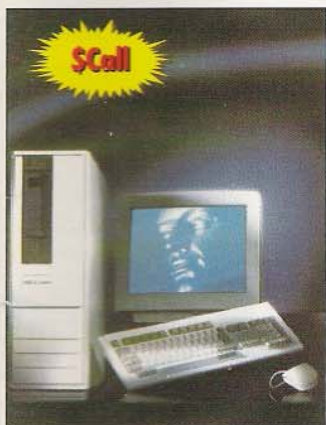
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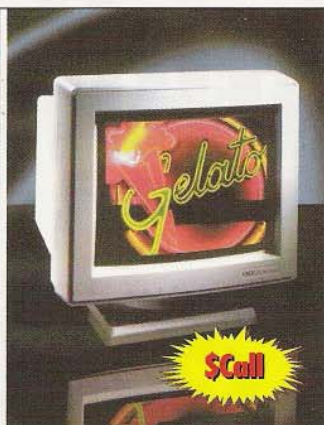
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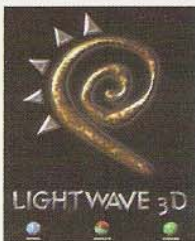
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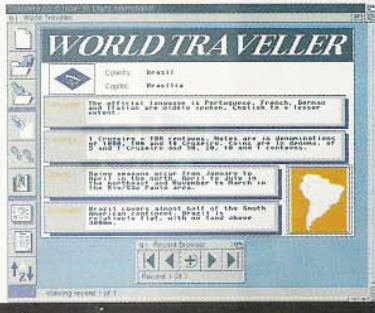
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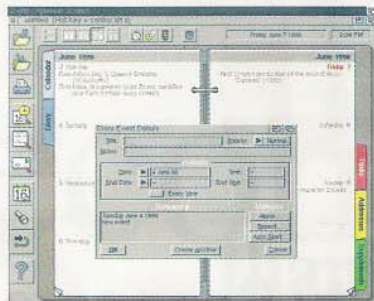
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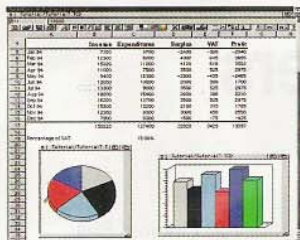
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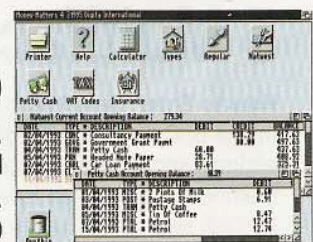


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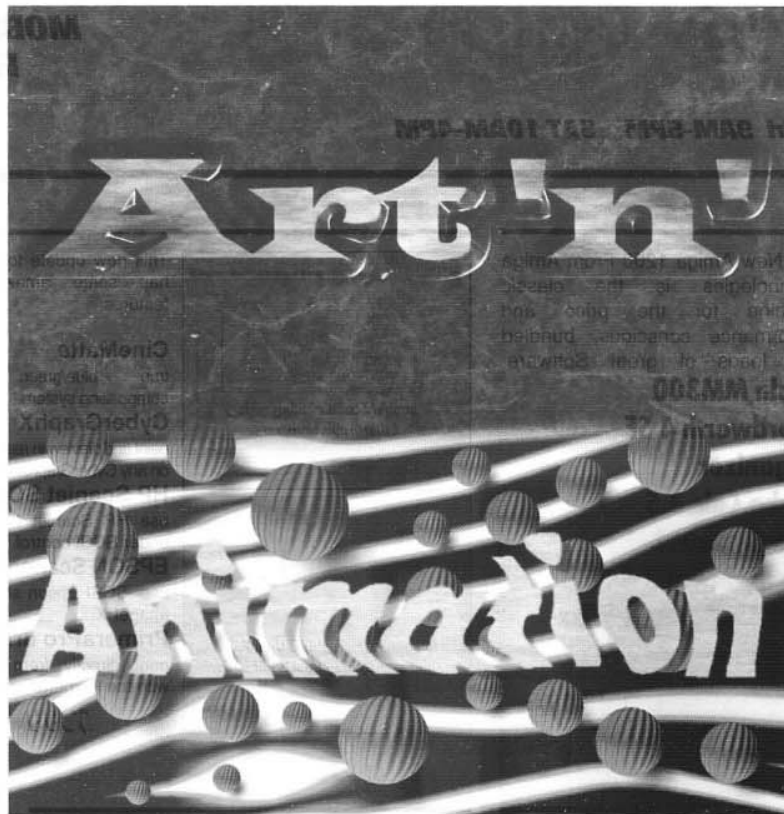
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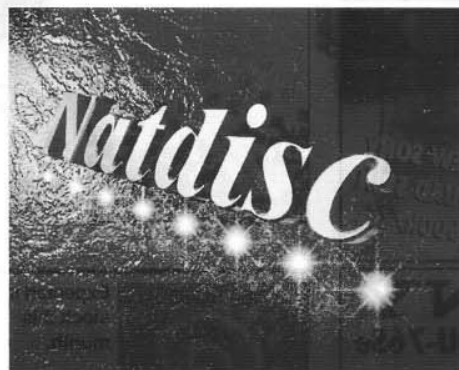
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How to Enter: Select from either; **Category 1:** Nomination of the work of another artist/s, **Category 2:** Original Still Image or **Category 3:** Original Animation. Forward a copy of the work on electronic media, along with your name, address and a daytime contact phone number. All categories will be judged by a panel of professional artists as well as members of the Amiga Review editorial team. Winners will be published in Multimedia and Desktop Video magazine and will also be notified by mail.

Send your entry to: Amiga Review, PO Box 288, Gladesville NSW 2111. **Enquiries (02) 879 7455.**

Plain English small print: You don't have to buy anything to be in this competition. Whatever the judges decide is final, you can't come back and complain. We're not responsible for what you send us, so don't send an original. We won't be sending all the entries back. If what you send us claiming to be your own work is really the work of someone else, you indemnify us against any claims made by the real artist. The prizes are offered by Natdisc, not Amiga Review. There is no element of chance in this competition.

AMIGA[®]

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IMPORTANT: Next issue will be PART of the June/July Multimedia & Desktop Video magazine - for info 1-800 252 879

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Why and where to from here?

It is now thirteen years since Commodore Review started. In that time, we have had our share of ups and downs. There were months in the very early years when it looked like we were not going to make it.

I well remember the day the offices of Gareth Powell in Carrington Lane, Randwick were closed for good in the mid-eighties. That afternoon two of the staff, myself included, pleaded with Gareth Powell to keep Commodore Review going. Surely there was a way to get the costs down.

As it happened, it continued. We struggled on and eventually reached a level at which the magazine was able to comfortably survive. Then in 1993 it became clear that all was not well in the land of Amiga. By July 1994, the magazine had changed hands.

To put it simply, I bought it. The changeover was not a smooth process. There was a rival bid that made things a little difficult.

Nevertheless, Amiga Review managed to kick off again.

We moved to complete production using the Amiga. We added another sixteen pages. New graphics were created and columns launched. Things seemed to be doing well until July 1995, when quite apart from the oscillating fortunes of Amiga, we ran head on into a massive increase in printing costs due to a world wide paper shortage. The increase was

calculated at 37% over our previous pricing.

Larger publications with many advertisers were able to absorb a good chunk of the increase. However smaller magazines had to bite the bullet, and put up cover prices.

We also needed to reduce our page count in a bid to try and keep everything on an even keel. With the changes we made, the cost increase was reduced to a few percent.

At the same time, the Amiga world continued to shrink. By January 1996, in the middle of production of our next issue, it became evident the magazine could not continue past one more issue. But what were we to do? Could we simply stop publishing? Never!

A concerted effort to find a solution was launched. We met with other publishers about merging the magazine. We also considered our other magazine, PC Review, as a possible home for an Amiga section and pondered the idea of putting out another issue without knowing what would follow.

We decided it was impossible to publish a magazine without saying where the next Amiga Review would appear. The trouble was, a solution was not forthcoming. Nothing added up. The sad fact was, Amiga Review was making less and less money every issue, because the Amiga industry in Australia was

Editorial



shrinking quickly. By mid 1995, advertising revenue was half what it was when we took over.

Without making huge cost reductions there would be no way to keep it going.

This drop in revenue was a reflection of the Amiga community's shifting loyalty - we are merely a mirror of what is happening in the market, we do not lead the market.

With all that in mind, I hope you understand the decisions we've faced and the changes we are now making to keep Amiga information flowing in Australia. Most of all, everyone here at Amiga Review would like to say a special thank you to all of our loyal readers who have patiently waited and waited for this issue to appear.

The Future

Yes, this is the last issue of Amiga Review in this format.

The next issue will be combined into a new magazine with a broader base. It's name is Multimedia and Desktop Video and it will be published in mid-June.

If you turn to page 80 you will see an idea of what the front cover of the first issue should look like.

The idea is to create a magazine that covers all the creative things you can do with a desktop computer - they very things that the Amiga was always good at.

We're talking animation,

painting, video titling and editing, multimedia presentations, music and entertainment.

In Multimedia and Desktop Video there will be plenty of general articles covering these topics, written to cover the major computer platforms including the Amiga.

However, there will also be a dedicated Amiga section that will continue to publish up to date news and product reviews.

A number of our regular columns will remain and all of our big advertisers have moved across to the new magazine.

The Amiga community that currently exists in Australia has made the move into the new magazine, and from the many phone conversation I've had, many of you are very happy with the direction we've taken.

True, it won't be everyone's cup of tea.

But, it is the best we could do in the circumstances. Indeed, it is the only way we could ensure continued support of the Amiga scene in Australia.

I'm very confident the new magazine will be an excellent forum for Amiga owners to let the rest of the world know what they can do.

At the same time, you'll be keeping up with the rest of the world too. Multimedia is the fastest growing area of computer use.

Subscribers

If you're a subscriber, you'll automatically receive the new magazine. Each issue of Amiga Review you have remaining will count as one issue of Multimedia and Desktop Video.

For a short while, we will offer other Amiga Review readers a discounted subscription offer - twelve issues of Multimedia and Desktop Video for \$49 instead of the normal \$64. If you wish to take advantage of this offer, call our free call hotline on 1-800 252 879.

A Final Word

Thank you once again to all of you who have supported this magazine and helped make it possible over the past thirteen years. Nothing in the world of technology is forever.

As we move on down the stream of time, the face of the desktop computer will no doubt continue to change as it is revolutionised by major breakthroughs and altered by many small evolutionary steps.

The machine on your desk in ten years will be so different from what you have now, we'll probably have to do this all over again well before then. For now, it's on with the new. Thanks for all the fish.

Andrew Farrell
Editor and Publisher

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E & O E

Datastore Version 2

By Stuart Sadler

► Datastore is Digita International's database software. A database, for those that don't know, is a program for storing information in an easily searchable, sortable format. Datastore V1.0 was reviewed in the March 1995 Amiga Review; this article covers the new features in version 2.

The list view

The main new feature of version 2 is the very useful list view, which allows you to see multiple records at once. This is handy when you are browsing through a list of data and want to work on multiple, unrelated records.

To select a record, simply click on the grey record number to the left of the window. If you want to select multiple records which are grouped together, you can click and drag down the list until all of the required records have been highlighted. Alternatively you can click the first record, hold down the shift key, then click the last record to select all the records in-between. To select other records without de-selecting previous selections, hold down the Ctrl key when clicking.

Text handling in the list view is the same as standard Workbench text gadgets, and the keyboard shortcuts are the same.

Drag and Drop Editing

To change the order in which the fields are displayed in the list view, you can drag and drop the field headings into any order you wish. Locate the pointer over the field name you

want to move and a drag and drop pointer will appear. Click and drag the pointer to the left of the field where you want it to be and let go.

To change the width of a column in list view, simply move the pointer over the dividing lines between the field headings and a re-sizing pointer will appear. Drag the column to the desired size and let go.

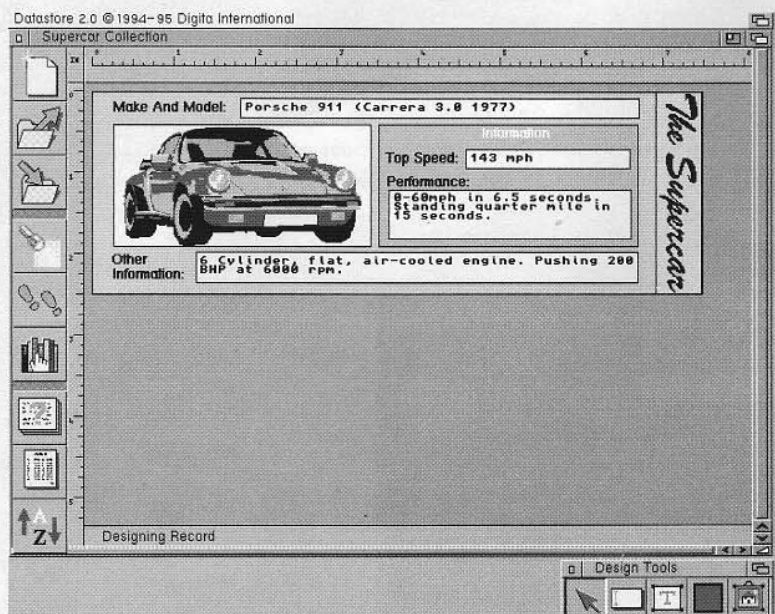
There are other quick ways to automatically set the widths of each column. By double clicking in a column heading, you can expand that column to the size of its longest field entry. Shift double clicking will reduce the column to the width of the heading. Holding down the Ctrl button with the above commands will cause them to

operate on all columns.

While in list view, you may want not to see particular records, without altering the displayed view in any other way. In order to do this, a new command has been added to version 2 called "Hide Record". This simply removes any selected records from the currently viewed list and leaves them in limbo. You can recall them with the "Switch Hidden Records" command, which moves the hidden records to the screen, and the displayed records into limbo.

To restore all the records to the screen, select the "Show All Records" command from the Record Menu.

Overall Datastore, like many of Digita's new releases, is developing

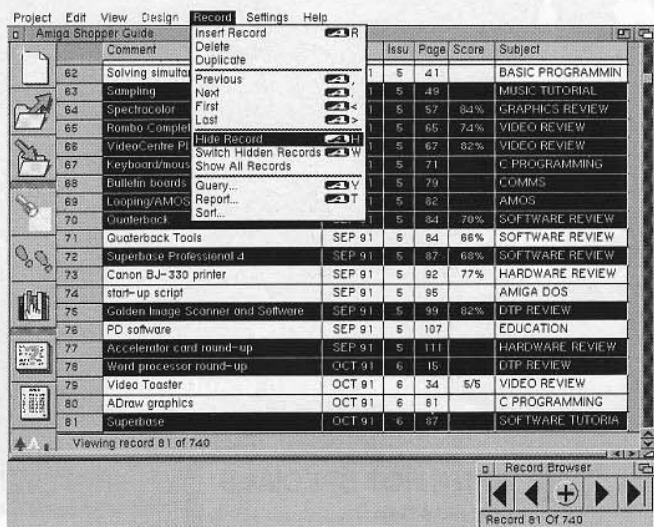


into a very professional tool for Amiga users although it did seem to slow down unexplainably sometimes. My only wish is to see the toolbar looking and working more like Wordworth, and to be able to run it in a Workbench window. Upgrade today.

Program Requirements

Datastore may now open a window on any public screen, such as the Workbench. It requires 1Mb RAM and Workbench 2.04 or higher. It is hard drive installable and will run on a double floppy disk system.

For more information call Amadeus on (02) 651 1711.



Organiser Version 2

When I first checked out Organiser a little over a year back, I immediately switched over from Contact, a program that had served me well until then. Organiser truly replaces your old paper diary, and eliminates having to make a fresh list of things to do everyday. In version 2.0, Digita have added a number of important new features as well as generally speeding things up.

Multiple diary events can now be scrolled using two little arrows that appear inside the day entry space. This means you can stick with your week-at-a-view and still keep an eye on those days when there's lots on.

Entering addresses is easier thanks to auto-capitalisation of names and addresses. You can quickly tag names in the address book, and there's a new field to hold the salutation (Mr, Mrs, Miss, Dr... etc).

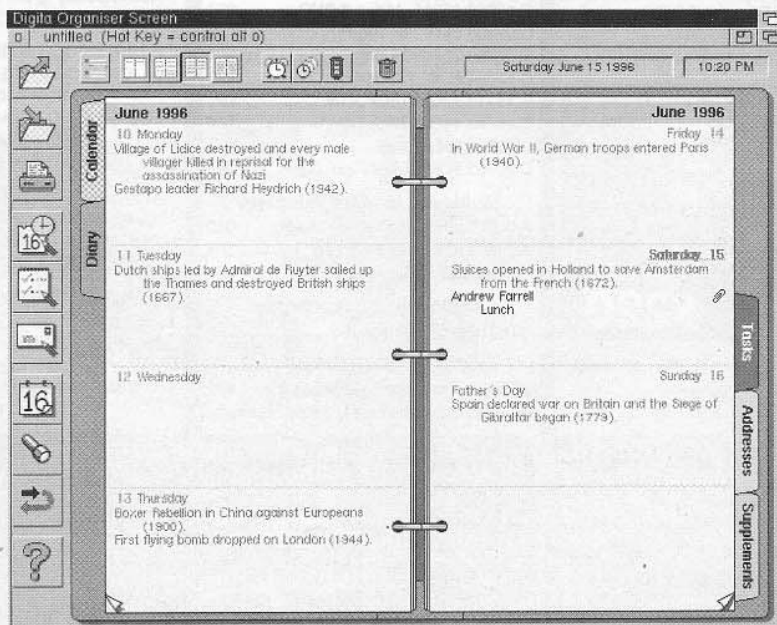
However, the most important and indeed useful addition is the linking menu options. This function brings all your contacts, tasks and diary appointments together. It allows you to link between items, saving repetitious entry of details. For example, if you're

looking at an address, you can create a linked appointment or task by choosing the Link, Add menu option.

Organiser switches to the appropriate page and supplies some details across from the address information automatically. Later on when you look at the diary entry, a paper-clip in the corner shows that it is linked to an address. One click and your looking

at the contact for the event. The reverse is also true. Look at an address entry, and you can see all the current links to tasks and appointments that you have entered elsewhere.

This is an excellent tool to keep track of everything, and to ensure nothing you've promised slips through. For more information call Amadeus on (02) 651 1711.



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Quarterback IS BACK

By Mark Cocquio

► Hands up all those who were warned to "Back up your data!". Hmm, plenty of hands. Now, hands up those who ignored this warning, and learned the hard way? Most of the above. I know that I fit into the second category.

Unfortunately, the hard way is still the way that most people learn, and you just can't tell some people that it's not a matter of if, but when, they are going to lose all their valuable data.

Once you've been burned, the next step is to get some backup software. One of the long time contenders in the Amiga market is Quarterback, which was unavailable for a while until recently. The latest version (6.1) has just been released.

What's New?

The new version of Quarterback is essentially the same as the old; there are a few things that have been twiddled, and a few minor enhancements.

Probably the most outstanding new feature of 6.1 is that there isn't one. This is not so much an upgrade as a "reprint" with a different publisher - Quarterback is now being distributed by Quasar Distribution, instead of Central Coast Software.

Most program changes are cosmetic - version strings and changes of names in the "about" requestor. Unfortunately, Quarterback still features its distinctive non-standard look and requesters. There is still no way to change the palette if you open Quar-

terback on a custom screen - shades of grey are all you'll see - and forget about customising the fonts (although Quarterback is at least smart enough to use the system font, and not just topaz 8).

More Floppies

Among the other changes made is an increased limit on the number of floppies in a backup (now a scary 6400). I can imagine this patch being for the benefit of a few very angry (and very sick) customers who had managed to discover the 4000 or so floppy limit of the old version.

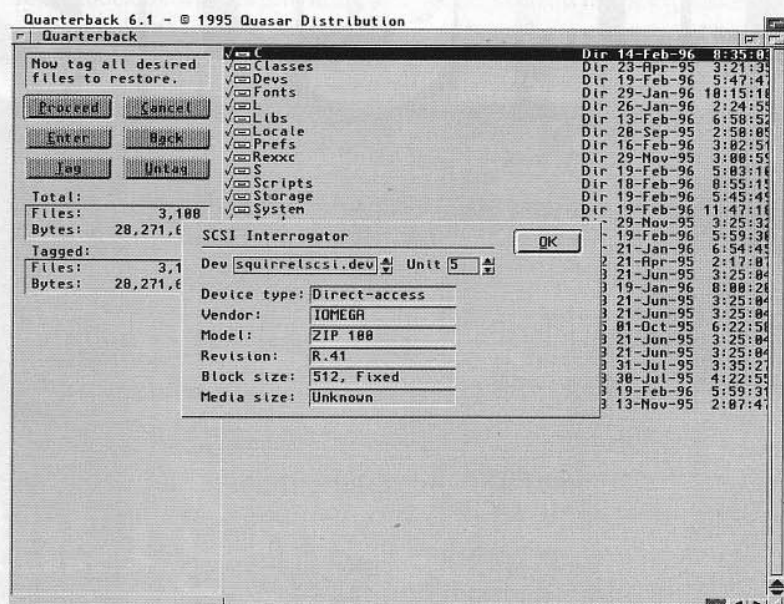
There are also a few bug fixes also associated with floppy numbering, and the program is apparently more lenient about older backups where this problem manifests itself.

Quarterback itself may be a little ugly, but it's still a reasonable program. The new version installs easily, and the manual is an easy read, covering all the areas it should.

The Amiga marketplace doesn't exactly overflow with backup software. The only other commercial contender is Ami-Back, and it's about as old as Quarterback (at least three years now).

I ran a few comparative tests, having owned and used Ami-Back for a while. The drive used was my 40Mb boot partition, and it was backed up to a hard drive file using 16-bit compression.

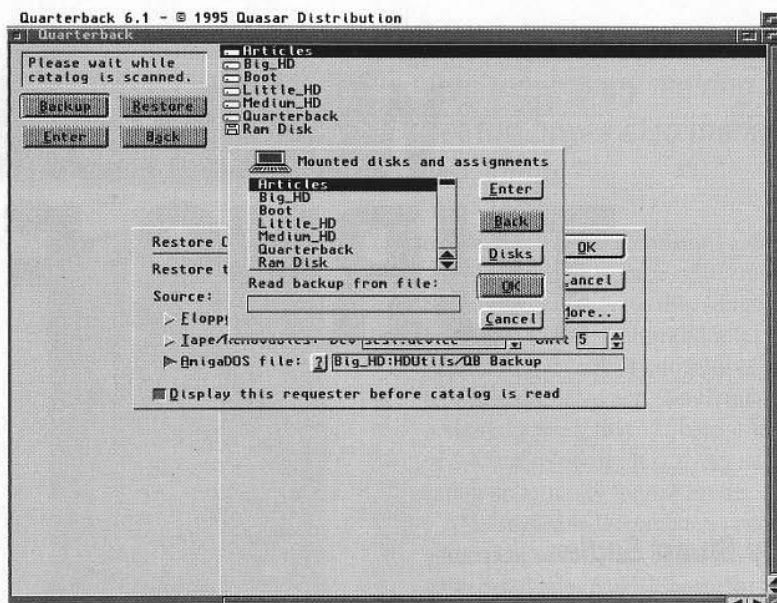
Quarterback did the job in just under 15 minutes on my 50MHz 68030 A1200, with a resulting file of



While the two programs are very similar in nature, Quarterback has got a few goodies that Ami-Back doesn't. Quarterback supports device compression, so if you have a tape drive with hardware compression you can use it easily. Quarterback also seems to be more configurable - you can specify what goes into a backup catalog, as well as the error log.

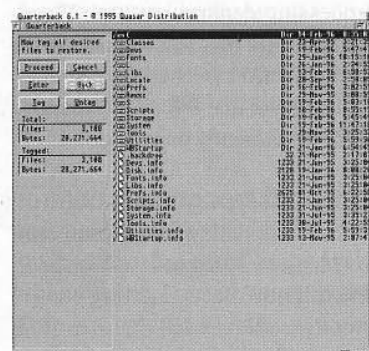
At the end of the day I guess Quarterback earns a hesitant thumbs-up. It would seem to beat Ami-Back in a few areas (although Ami-Back has its strengths, too), and it does what it sets out to do - back data up.

It could be much, much better though, especially when you see what PC backup software is like. The main thing is that Quarterback is available again, adding just that little bit more choice that we miss so much in the



If you already have an older version of Quarterback, don't bother getting this upgrade unless you have a masochistic urge to perform 6000 floppy backups, but if you are in the market for backup software, check out Quarterback as well as Ami-Back, as the two are so close that it often comes down to personal taste.

For more information call Quasar Distribution on (03) 9583 8806. RRP is \$69.



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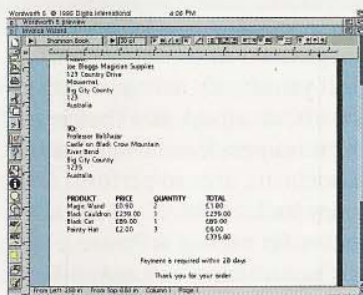
Wordworth TURNS FIVE

By Stuart Sadler

Digitia International are developing a strong contender in the word processing department with Wordworth 5, and this version brings the Amiga world closer to the more advanced level that PC and Macintosh users are currently enjoying.

Improved typographic control

Wordworth's typographic controls are now enhanced with the addition of FontEffects, offering control over the width of each character from 25% to 400% of the standard character widths. The obliqueness or slantiness of each character can be adjusted forwards or backwards up to 45 degrees; this is similar to but not the same as italicised text. Small Caps,



another FontEffects option, turns all selected lower case characters into their upper case counterparts, leaving them at a user determined percentage of the selected font's cap-height.

Finally, strike-through simply puts a line through highlighted text, which is useful for indicating changes

made to a file's content.

Drag and drop style sheets

Wordworth 5 includes operational improvements such as drag and drop style sheets. These let you easily change the character and paragraph settings by dragging the style name you want from the style window to the text you want to change. Styles contain the font, size, style (bold, italic etc...), and formatting information such as tabs and line spacing for individual characters or whole paragraphs.

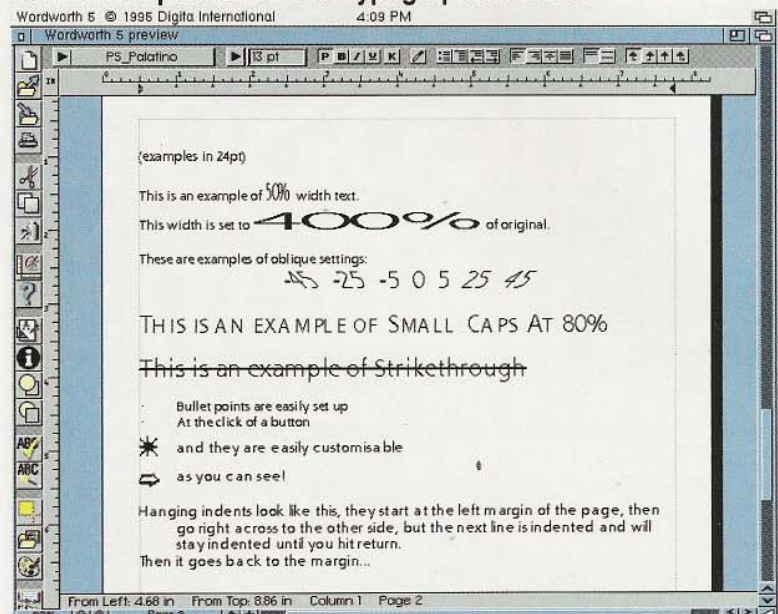
This means, for example, you can set up a document, attaching the style name "heading" to each heading, "sub heading" to the sub headings, "normal text" to the main text, "captions" to the caption text and so on. Then, if you want to change the look of your document, you can quickly make adjustments by altering the style sheets rather than scrolling through the document to make individual changes.

This reduces errors and provides a consistent format that is easy to control.

Styles can also be based on a previously defined style. If you have specified the style "normal text" to be 12 point Helvetica, plain, you can define the "headings" style to be based on "normal text" but with bold added and the size changed to 18pt.

Then, if you change the "normal text" style to Times instead of Helvetica, the heading style will change to Times as well.

FontEffects provides better typographic control.



Wizards' magic?

A special new feature of Wordworth is the Task Wizard. A Task Wizard is essentially an ARexx script that will take you step-by-step through complex tasks such as setting up a fax header or creating labels. All you need to do is fill in the details as requested and the Wizard will do the rest for you. Very easy. There was only one wizard available with the review copy, and it assisted in the set-up of a simple invoice. First, it inserts the current date and a heading at the top of the page, then asks for details such as your name and address, the customer's name and delivery details, then for the order, price and whether there are any more items to be entered. When the Wizard finishes it adds up the totals and puts a message on the bottom of the page requesting payment in 28 days - now you have a nicely organised invoice ready to be printed out!

Digita plans to write more wizards, but hopes there will be many interesting new wizards written by users made available on the Internet. This is the direction that many serious software titles have taken in the Mac and Windows world, and should help boost the Amiga's chances of really breaking into the mainstream when ESCOM release the new Amigas into the marketplace.

Easy formatting

The fast format button is used to copy formatting information from one paragraph to another. Formatting information includes things like tabs and indents. To use, you just click the fast format button, click the paragraph you want to copy the formatting from, then click on the paragraph you want to change. Simple as that.

The bullet points button just as easily lets you set up points with bullet markers, or convert paragraphs into bullet points if you have already typed them in. This method avoids having to muck around with tabs. Just click the bullet button and start typing.

Hanging indents can be set just as easily.

General improvements

Digita have accelerated loading, saving, printing, editing and searching in version 5. They have also increased the number of ARexx commands to 150.

Improved support for LaserJet printers is included, as well as a background printing option which allows you to continue editing while your job is printing.

There is now support for importing 24 bit colour graphics, and Wordworth 5 will import Final Copy II and Final Writer documents, as well as TurboCalc spreadsheets into its tables function.

The Amiga clipboard is supported, improving intergration with other programs, especially other Digita titles.

To top it all off, 50 CompuGraphic fonts have been included for free.

Should I upgrade?

To be completely honest with you, I don't know.

There really is only one other wordprocessor comparable with Wordworth at the moment, and that is Final Writer. Both programs have an impressive list of features, and both programs have capabilities the other doesn't have.

Those of you deciding on features alone will need to decide which func-

tions suit your needs best and choose accordingly.

Final Writer still has the edge with customisable menu items and multiple toolbars, rotated graphics, irregular shapes, sections, bibliographies and a grammar checker. Wordworth makes life easy with task wizards, and its drag and drop capabilities are great to work with.

Features such as bullet points and hanging indents make using it very quick and easy.

The support of templates, tables, footnotes and bookmarks may sway you to purchase Wordworth. The librarian, text to speech, true type font support, or the ability to have objects across pages may be more to your liking.

I personally like the AutoCorrect(tm) spell checker, being able to run Wordworth in a workbench window and the AmigaGuide on-line help.

Wordworth 5 should be available in the stores by the time you read this preview. The version previewed is V5.0 BETA2. Wordworth 5 requires Workbench 2 or 3, 3Mb of RAM and a hard drive or 2 floppy disk drives.

For more information call Amadeus Computers on (02) 651 1711. RRP is \$149.

A finished invoice created using one of the included Wizards.

Wordworth 5 © 1995 Digita International 4:06 PM

Wordworth 5 preview
Invoice Wizard

Shannon Book 30 pt

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LETTERS to the editor

By Andrew Farrell

Whither demos?

I have been a regular reader for a few years now and my all time favourite part of the magazine was the demo column.

Having come from Toowoomba, where consumption of Valium is compulsory, it has taken me this long to notice and respond to the column's absence. What happened? Did the author get put in jail?

Assembly programming is my idea of fun, so consequently I gauge the value of a computer by what it can do in real time, and demos always amaze me.

The Nov/Dec ACAR had three articles on desktop publishing programs which caused me to gloss over most of that issue. Desktop publishing certainly has a place in the magazine, but don't you think that was overkill? Meanwhile, no demo section!

OK. Cosmic harmony suggests that I say something positive now. I like the product info section and news, especially of late.

As much as I like the fact that the Amiga is generally retailed through specialist shops, the ones like

Brashes, Myers and Kmart are a necessary evil and I would like to know when/if the Amiga will be carried by these stores again. The reason that I don't go and ask in person is because the people who work there don't know the difference between their "a"s and their "e"s.

Matthew Gundry

Ed: *We apologise for the demise of the demo column some time ago - and it won't be coming back in the new magazine, Multimedia and Desktop Video.*

Amigas won't be seen in chain stores again until an Australian distributor appears. Sluggish to-ing and fro-ing has been going on over this issue for months now, with no end in sight. Nobody's exactly champing at the bit to be the local Amiga representative.

Waste of money?

I am writing partly to respond to a letter I read in another magazine in December 1995.

I'm concerned that I may be throwing away \$1200 for an A1200. The letter basically said that Amiga, no matter what they do, will never catch up with

IBM compatibles.

But I have a lot of faith in Amiga and I believe that Amiga graphics are more advanced than IBM.

The writer of the letter said he would rather have Workbench than Windows any day, and that his A1200 is still doing things his Pentium can't do.

Please give me the truth - is an A1200 worth spending my hard-earned cash on? I will only be using it for homework and games.

Chad Daly,
Qld

Ed: *For \$1200, with considerable bundled software, an A1200 isn't a bad deal. Add a decent monitor and you're talking \$1600 or so, which is what you'll pay for a 486DX4/100 system, also with bundled stuff.*

The Windows 95 486 will have 8Mb of RAM to the Amiga's 2Mb, and both will be tolerably nippy for running undemanding applications like word processors, simple business software and so on.

The 170Mb hard disk that 1200s are coming with nowadays is plenty big enough for lots of data files, which are likely to be smaller than the PC's files and make the drive no more re-

strictive in real terms than the 850Mb unit the PC will probably have. The PC's applications will be more powerful than the Amiga's - but for domestic use this doesn't make a whole lot of difference. The PC will also have a lot more raw processing power - but unless you're into 3-D rendering, fractals or the like you're unlikely to notice.

The old "Amiga graphics are better" argument doesn't apply any more.

Amigas can be connected to video easily. That's the only advantage they have left. PCs have higher resolution, more colours and far greater speed for less cash.

At the high end, the differences become more pronounced. A \$6000 68060 A4000T cooks along at a respectable 80 MIPS or so, but it only comes standard with 6Mb RAM and when you're doing 3-D rendering, non-linear video editing and similar high end tasks Amigas and PCs need similar amounts of RAM to do the same job.

For that kind of money you can have a 166MHz Pentium PC with, say, 40Mb of RAM and a 2Gb hard disk.

Sure, it's not using the

drive as efficiently as the Amiga, but what do you care? The fact that the processor's howling along at about 300MIPS and 90MFLOPS lets inelegant, brute-force methods work really well.

Don't give up!

Last year I made the decision to subscribe to your magazine. I did so after considerable deliberation because I thought it to be the best value magazine and it was "home grown".

As I have not received an issue since last November (and a call in February gave me advice that the next issue was "a few weeks" away) I'm beginning to think you have given up because the market has diminished.

I believe the Amiga OS to be the best available to date. Its greatest failing is that the competition have so much software available it's just not funny. But it's expensive.

I want to encourage you to write and publish another issue - before it's too late and you lose all your subscribers.

Some ideas:

I want to encourage you to write and publish another issue - before its too late and you lose all your subscribers.

Some ideas:

* What can be done with a CD32? Hardware/software possibilities and limitations.

* Review of CAD programs available - how to use them.

* Review of articles from past issues - a consolidated index and tables of features/ ratings and current costs.

* Programming tips - C or assembler.

* System explanation i.e. caches - how they work, what are vectors etc.

Come on guys, we're starving for info!

P Reed,
NSW

Ed: *We apologise to you and to all of our other faithfully waiting subscribers for the long drought between Amiga Reviews.*

After finishing the Nov/ Dec 1995 magazine we knew we'd have to change the magazine's format, but the continuing slowdown of the Australian Amiga scene even as we deliberated made it difficult to reach a decision.

When the ratio of PC to Amiga press releases exceeds 200 to 1, it becomes plain that just going bi-monthly isn't going to be enough.

All the enthusiasm in the world doesn't make up for a dearth of product to review; you can only do so much with how-to-make-the-most-of articles.

We believe the conversion of Amiga Review into Multimedia and Desktop Video is the best choice we could make, under the circumstances.

The Amiga's video abilities are the only area where it still enjoys notable superiority over PCs; low end Amigas can hook straight up to a VCR and bigger machines can do non-linear video editing cheaper than any other system.

Unfortunately, the rest of the Amiga market is at a standstill, when compared with the continuing mercurial development of IBM compatible machines.

The "IBM software's more expensive" argument is another one that's look-

ing a bit rusty these days. If you buy the CD-ROM version of Microsoft Works for Windows 95, you get a word processor as good as anything on the Amiga, plus a good spreadsheet, a good database, and a whole suite of good reference books thrown in, all on one CD.

It costs \$79.

It also pays to remember that Amiga software list prices are the real price. IBM software list prices are frequently far above the real street price.

We hope you and our other subscribers will be pleased with the amount of Amiga content in Multimedia and Desktop Video.

Decent wordprocessor

Help! I have purchased a second hand A500 which has been upgraded to 8Mb of RAM with an AlfaRAM box and has Workbench 1.3. My printer is a Deskjet 500.

My problem is I want a wordprocessing program which will give me the ability to produce high quality resumes.

I need a selection of page borders, a selection of fonts which will enable me to do large headings and title pages. Also I would like to be able to include a graphic which pertains to the personality of the resume.

At the moment I have ProWrite and Kindwords, but I find that it takes forever for the printer to work, and also it won't print very large fonts.

Please can you advise me on what to buy and how much it would cost me to get the results that I want.

Desley Page,
Qld

Ed: *Your Amiga's not very fast and it has an old operating system, but it's got more than enough memory to run current word processors.*

If you upgrade the machine to Workbench 2 or 3 (\$150 to \$200, retail), you can run Wordworth or Final Copy, either of which should suit your needs.

Complex documents will be a pain to work with thanks to your slow CPU, but resumes aren't that bad.

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Dr. Help EXTRA LARGE Edition

By Daniel Rutter

Drive Problems

1) What is the correct procedure when the computer drive light is on continuously? To eject a floppy safely should we eject the floppy quickly while re-booting (while the drive light is off), or should we turn off the machine?

2) In regards to the Amiga Review article "How to Read/Write/Format MS-DOS disks on Workbench 2 and above" - can HD disks be safely used on an Amiga without damaging the drive, and can DD disks be used on a PC?

3) Currently I have a 2Mb RAM card in my PCMCIA slot, giving me a total of 4Mb for my A1200. If I buy a Squirrel CD drive for my PCMCIA slot, can I daisy-chain the 2Mb card, or will I have to forfeit it?

As an alternative to using the PCMCIA slot for the CD-ROM, would it be more appropriate/cheaper to use an internal quad speed CD-ROM?

4) I have heard that an analogue joystick, when adapted for the Amiga, cannot be used with all games - is this correct?

5) Is there a disk I can purchase that will install

software onto a hard drive?

Mr K Rodgers,
Vic

Dr Help: 1) When your floppy light is locked on by some misbehaving program and you don't hear the drive doing anything, it is very unlikely that anything's actually being written to that disk.

This doesn't mean the disk won't be corrupt - if something hung in the middle of a write operation, the damage will already have been done - but no FURTHER harm will befall you if you just reboot and pop out the disk, or pop out the disk without rebooting, or turn the machine off.

It's actually not certain that you'll corrupt a floppy by ejecting it even when the drive is working properly - if the operation in progress is a read, not a write, an unscheduled disk ejection will just cause the program doing the read great consternation, and leave the disk unharmed.

2) Amigas can use high density disks properly - formatting them to twice the capacity of double density - only if they've got a high density disk drive. Old model A4000s came with

HD drives, but for every other Amiga they're after-market items, usually added as an external drive. Double density disks certainly can be used on PCs, since HD drives can read DD formatted disks but not vice versa. However, it's possible to format HD disks as DD.

The jury is still, technically at least, out on whether using high density disks as double density is a Good Thing or not. It's actually perfectly possible to use double density disks as high density (by punching a second hole in the disk) and vice versa (tape over the extra hole on the HD disk or HD drive equipped A4000s will be unable to read it), and there seems no good reason why HD disks formatted as DD should have any problems.

DD disks are made to lower tolerances than HD and so hole-punched double densities can reasonably be expected to be less reliable than HDs - especially if the hole punching process left little bits of plastic floating around inside the case.

3) Installing a Squirrel will indeed mean you can't use your 2Mb PCMCIA

RAM expansion any more. Personally, I'd view this as a blessing, since PCMCIA is a lousy way to expand an A1200's RAM.

If you put a plain RAM expansion card into your 1200's trapdoor socket, the machine will become something like twice as fast, because it's been given proper 32 bit fast RAM. PCMCIA RAM gives you more storage, but that's it, because it's only 16 bit - and it's not that cheap for what it does.

If you go for a Squirrel SCSI controller, you'll have to buy a separate external CD-ROM drive - the Squirrel is just a controller, it doesn't come with a drive.

You may have the Squirrel confused with the Zappo CD-ROM drive, which is a controller and drive package that plugs into the PCMCIA port, but doesn't let you add any more devices - with the Squirrel, you can run a CD-ROM, a Zip drive, another hard drive - up to seven devices, in fact.

The other option is to go for a trapdoor expansion with a SCSI option installed. There are a plethora of A1200 expanders with

and without SCSI and with and without faster processors, but many of them can't be bought locally, and I strongly advise you not to buy a 1200 expander/accelerator from overseas unless the idea of airmailing unexpectedly incompatible expanders back and forth across the oceans really appeals to you.

A1200s are somewhat notorious for bizarre incompatibility problems between certain A1200 versions and certain expanders, and nobody seems to be able to say for sure what will work with what.

Whatever trapdoor expansion you get, it'll have a RAM expander option, and I urge you to use it. PCMCIA RAM expansion is A Bad Thing. Flog the PCMCIA card for what you can get and invest in a nice 2Mb SIMM for the board, and enjoy the extra speed.

4) IBM-compatible analogue joysticks can be used with Amigas with a simple adaptor gadget, available in several different incarnations from different places. But the resulting Amiga analogue stick will only work with games that specifically support it - certain flight simulators, in other words. All other Amiga games only work with old-style digital sticks.

5) Hard disk installation is a sore point for the Amiga. Every other machine in the world lets you hard disk install everything as a matter of course, but we Amigans are still left with most of our games either saddled with lousy, homespun installers or no installer at all, and a non-DOS disk format that stops you installing the software yourself.

AmigaDOS actually comes with one of the best installation systems in all computerdom - the inventively named Installer - but a few applications and a huge number of games don't use it.

All of this is defended as an anti-piracy measure, but it can't be denied that uninstallable games, along with other annoyances like code sheets and refer-to-manual protection, punish legitimate users as well as inconveniencing amateur pirates. Professional pirates nuke the protection schemes in no time, and sometimes even make non-DOS games hard disk installable!

The software you're looking for - and there have been a few attempts in this field - takes non-DOS game disks and turns them into an executable DOS file.

I haven't played with such packages extensively and don't know where you can get them in Australia - since, like copy protection cracking software, modifying a game into an installable file is practically guaranteed to infringe the software license agreement.

Which controller?

The question of high density drives for the Amiga is one that I am interested in having settled.

I will be buying an Amiga when the model when the A1200 with an inbuilt CD-ROM is finally produced. At the moment I'm using my brother's A4000, and so all of my disks are high density, and being able to use high density floppies is essential.

Daniel Rutter's article in your Nov/Dec 95 issue

"High Density on the cheap" explains that high density drives on the Amiga must "operate at the same data transfer rate as the standard double density drives, because the Amiga disk drive controller can't do any better."

I can't quite accept that explanation by itself, because the Amiga disk drive controller seems to access IDE drives at full speed. The article mentions that extra hardware can allow the Amiga to use PC high density drives, so is this full speed access?

Also, can the A1200 double density internal drive be removed and replaced with a high density drive? I don't want a double density drive at all.

Neil Edridge,
Qld

Dr Help: I should have worded that article better. When I said "the Amiga disk drive controller can't do any better" I should have specified "the Amiga FLOPPY disk controller". The hard disk controller is quite separate from the floppy disk hardware, which has stayed essentially the same since 1985.

The extra hardware you need to make a plain IBM compatible 1.44Mb mechanism work as an Amiga HD drive is so complex because it has to match the modern mechanism to the Amiga's antique floppy drive hardware, effectively reducing the data transfer speed.

On the bright side, you certainly can replace an A1200's floppy drive with a HD drive, either by a frenzy of soldering iron brilliance to get the abovementioned PC mech-

anism in, or by using a "proper" HD Amiga mechanism. Unfortunately, these bare drives are harder to find than the cased external variant, but you should get a passable trade-in price on your existing floppy drive (spare Amiga floppies aren't a glut on the market) so the exercise shouldn't be too expensive.

Mind you, you may never see a CD-equipped A1200. It's a perfectly logical machine to make as part of the "bridge" Amigas to keep the platform going until the all-new PowerPC machines hit the streets.

But nobody's ever seen more than a Commodore prototype from before the liquidation and Amiga Technologies are not saying anything specific about their development program.

Floppy questions 2

Many thanks for your article "High density on the cheap". I have recently acquired an A600. So I thought to myself "I need to buy lots of spare disks and learn how to copy my originals." You can probably tell by now that I haven't touched a computer before.

Off I went to the largest supermarket and bought packets of disks. These appeared to be formatting OK (they were already formatted for IBM), and the people I asked assured me they would be OK. Also, I couldn't see any other kind.

I was having a merry time copying disks. Then I bought a 500Mb hard drive and realised I didn't really need to copy all those disks. It was then that my internal floppy drive started to make strange noises and put up messages saying "corrupt

disk".

Have I ruined my floppy drive?

Name withheld,
NSW

Dr Help: Hey, I guessed that you hadn't touched a computer before as soon as you said you'd got an A600.

I've got good news and bad news. The good news is that using high density disks has not done your drive any harm. The bad news is that there may well be something serious wrong with it. Then again, it may just be dirty.

You can clean a drive yourself easily enough, but I don't recommend it for beginners as an inexpertly manipulated cotton swab can make things worse. Take the machine to a dealer or repairer (check the Amiga Review ads) and let them have a look at it; with any luck it's just dirt.

500 floppy

I have an A500 with a Commodore 1084S monitor and a friend with an Amiga of some kind with a Commodore floppy disk drive. Would his drive be useable with my A500?

Sean Haines,
SA

Dr Help: If it works on another Amiga, it'll work on yours. If it's a Commodore floppy drive that works with some non-Amiga Commodore machine (C64, for example), it will NOT work on your A500.

Confusion!

I have an A500 with the memory expanded to 1Mb and I wonder if you could tell me how much the ex-

isting (chip?) memory could be usefully expanded and how much it would cost. What's the difference between chip and fast memory? Does "fast memory" merely refer to a disk - if so, is it DF0 or is there an internal disk apart from DF0?

Would it be more financially practical to wait until the new Amigas are more generally available and buy one of those?

Also, could you please explain the main differences between the A500 and the others in the Amiga range - is it internal processing speed or the number of peripherals they can support, or what?

Finally, can you give me some idea of the relative power of the various Amiga machines?

P. McCarthy,
NSW

Dr Help: You seem to be confused about the difference between RAM (Random Access Memory) and disk storage. DF0 is your A500's internal (built in) floppy drive, which stores data semi-permanently - information stored on a floppy disk stays there, barring accidents, until you remove it again.

RAM, on the other hand, is solid state (no moving parts) electronic temporary storage, which gets wiped whenever you turn your computer off. But RAM is much, much faster than disk storage - it can find data several MILLION times faster than a floppy disk and deliver it hundreds of times as fast.

Chip RAM is the memory that your Amiga's custom video and sound chips can directly access;

the amount of chip RAM you have determines the resolution and number of colours of pictures you can display, for example. Your stock A500 probably only has 512K of chip RAM.

Fast RAM is RAM that cannot be accessed by the custom chips, but this makes it, and the computer it's in, operate more quickly. Your A500 will get about 30% faster overall if you add proper fast RAM to it.

The 512K RAM expander in your machine is not true fast RAM. It's a hybrid, without the speed of fast and without the usefulness of chip. But you'll be pleased to know that via a small hardware hack that any competent Amiga tinkerer can do for you, the 512/512 split can be converted to 1Mb of chip RAM.

You can actually expand your A500 chip RAM to 2Mb via an extra add-on gadget, but given the other limitations of the machine this isn't a very cost-effective idea.

If you want more RAM than 1Mb, there are a number of ways you can go, and they don't have to be very expensive. There are trapdoor expansions (that go in the same socket your current 512K expander occupies) with 4Mb or higher maximum RAM capacities.

There are lots of expansions that fit in the expansion slot on the left of your A500 (the opposite end to the disk drive), which allow up to 8Mb of extra fast RAM (8Mb is the maximum you can add), and may also include faster processors and/or hard disk drives.

If you can find A500 expansions cheap - and they're not in much demand any more - you could get some useful memory into your machine for not much. But getting a more advanced machine will give you compatibility with many more recent programs, without having to bolt on a million and one extras to your old 500.

In answer to your last questions, here's the Potted Guide To Amiga Models.

A1000: First Amiga made. Stock A1000s now very incompatible with a great deal of software. 68000 processor running at 7MHz.

A2000: The classic "big box" Amiga, with lots of expansion slots you can put extra hardware into. Readily (but not cheaply) upgradeable to be functionally identical to a cutting-edge machine. Default processor still a 7MHz 68000, but all other processors available.

A500: A cut down A2000, with only one "slot" (the side expansion port) and the distinctive console case. Cheap, but harder to expand.

A2500: Rare A2000 variant that came with a 14MHz 68020 accelerator.

CDTV: The first attempt by any manufacturer at a "lifestyle computer", the Commodore Dynamic Total Vision (hey, that's what THEY said it stood for) looked like a CD player but was really a CD-ROM equipped Amiga with infrared controls, designed to hook up to a TV. The world was not ready for the concept and the CDTV survives only among enthusiasts.

A3000: First Amiga to

come with 2Mb chip RAM, and 25MHz 68030 processor, giving performance about 10 times that of a stock 68000 machine. Good built-in gear and more advanced Zorro III expansion slots compensate for the fact that the 3000 has fewer slots than the A2000.

A500+: A very rare (in Australia at least) precursor to the A600, with AmigaDOS 2 and 2Mb chip RAM as standard.

A600: The orphan Amiga, the A600 had no keypad, practically no expansion possibilities and no hope of being preferred over the old A500 by anybody. Apparently someone's actually come up with an accelerator for the A600 now; this is like putting fat tyres and a big donk onto a Reliant Robin.

A4000: Based on 68030, 68040 or 68060 processors and highly expandable, the A4000 and A4000T (in a tower case with more slots) are the current alarmingly expensive flagship Amigas.

They feature the AGA (Advanced Graphic Architecture) chipset which allows 256 colour graphics or 262,144 colours in HAM8 mode, against 32 and 4096 for all the older machines.

A1200: Console-cased AGA machine, which is roughly to the A4000 as the A500 is to the A2000. Uses a 14MHz 68020 processor, for about five times A500 speed.

CD32: The Amiga game console. Long before CD game consoles were the flavour of the month (3DO, CDI, Playstation...), Commodore came up with this cutdown 1200 and its

integrated CD-ROM drive. Lacklustre advertising and software support mean the CD32 lives on today, but has been obliterated in the sales department by the Big Consoles.

HD hassles

I really enjoyed your article on "High density on the cheap" in the November/December issue.

I am a silly sod. I actually went out and bought a \$90 high density IBM drive and found out the hard way. This wasn't the end of it, though. I shelled out another \$240 for a Power high density internal.

This refused to format high density disks (yes, the ones with the two holes in them - one on either side). Even with the high density patch installed it would not format 1.76Mb disks. The A1200 I own stated that the disk was "not of required type".

I bought public domain DOSDrivers and mucked about re-writing them. The best I ever got was to cylinder 40 using the mfm.device. I rang the supplier only to get abused for not installing it correctly or not using it properly. OK, I submitted to this - I am not a professional.

I shelled out a further sum of money for an A4000 Chinon high density internal. This is in my machine at the moment. BUT it STILL will not format, read or write high density disks. It still insists the DOS isn't of required type.

Are there any files the A4000 has that the A1200 doesn't, or is it hard coded into the ROM chips? How can I get my high density

drive to work?

I have an A1200 with a 2Mb PCMCIA card (I've taken this out and it didn't change anything), a standard Epson printer, Workbench/Kickstart 3.1 (I had 3.0 for some time and still no change). My machine does everything it's supposed to - could it be faulty?

David French,
SA

Dr Help: In a word, yes. You've already covered all of the avenues I'd suggest, and a few I wouldn't - like running the patch program and playing with DOS-Drivers. Neither of these approaches should be necessary, since AmigaDOS 3+ handles high density disks automatically, with no additions needed. You should just plug the thing in and go.

You didn't explicitly state it, but I assume both drives worked with double density disks. This rules out incorrect wiring, unless the only dud wire is the HD detect line. To get a bit more diagnostic data, get hold of a high density external drive for long enough to see if it works. I'm afraid I've got no pat solutions for this, though; take the machine to a technician and see what they think.

The need for (cheap) speed

I am running an A500+ with 2Mb chip RAM (soon to be fitted with an AlfaPower IDE hard drive and 2Mb fast RAM). Is it possible to replace the 7MHz CPU with the later 16MHz, as I have read in this month's Amiga Review that you have done

this with the 68010.

I have the 16MHz Motorola chip in my hot little hand, but I am led to believe that I need a small board to fit the chip on. Is there a program that will tell me how to build it and what parts I need? I am not too bad with a soldering iron.

Harry Hayes,
NSW

Dr Help: When I was even younger and more foolish than I am today, I indeed put a 68010 processor into my A500.

This produced a speed increase so small as to be unnoticeable to anything other than benchmark programs (would you believe 5%?), and required a small software patch to be run to mask out the one instruction that was different between the 68000 and the 68010.

If I was running a program that didn't let me load the patch first (non-DOS games, for instance) there was a small but significant chance that the machine would crash.

The 16MHz 68000, on the face of it, looks like a much better idea. As you say, you can't just plug it straight in - it needs a 14MHz clock signal, twice the A500's normal CPU clock, or it'll work just like the slower version - and you'd think that after the board's been built you'd have a machine that's twice as fast, at least for some operations.

But you'd be wrong. Since the rest of the machine is still working at 7MHz, including the data-in and data-out pathways, the speed improvement from a plain double-speed

68000 is very much the same as that from the 68010. It should be more compatible, but who cares?

If you add some cache RAM to the faster CPU you'll get the full advantage of the extra processing power, but building a cached 14MHz 68000 board is well beyond the abilities of even an experienced hobbyist, and you'd do better to just buy a second hand AdSpeed accelerator, which is exactly this gadget only professionally made.

I advise you to gaze wistfully at your 16MHz 68000, then plug it firmly into a small piece of anti-static foam and keep it for posterity. In 2050 they'll probably be worth something.

Mystery crash solution!

This letter is in response to the Dr Help letter in the September issue of Amiga Review, "A500 Questions", where the person's monitor goes a shade darker, the power light dims and flickers, and then the computer crashes.

My computer had the same problem. It was to do with the power socket; probably because I'd plugged in and removed the cord a lot, it loosened the socket away from the metal casing.

I opened up the computer, pulled off the Faraday cage, and used a piece of stiff wire to fashion a clamp to hold the socket against the metal casing. You could probably solder it too.

Brett A Martin,
NSW

Dr Help: Gee, it's nice

when people send me answers. All I have to add to this one is that the Faraday cage is the tin shield over the A500 motherboard, held in place with a few screws and several bent metal tabs.

If you don't know you need a 2mm Allen key or Torx driver to undo the standard screws on A500s, you probably shouldn't be mucking about with bits of wire near the power connector.

Which, by the way, is low voltage; you may fry your power supply or your computer if you get this wrong (you're more likely to just pop the easily replaced power supply fuse), but the worst injury you could receive is a weeny burn from a shorted wire. If you then panic and fall backwards into the spa bath while holding your soldering iron, you could be in deeper trouble.

Incomprehensible manuals

Am I more stupid than most people? I had a Commodore 64 and used Easy Script until my printer got damaged and Commodore would not answer my letters asking for spare parts. No problems. The printer is on the tip. As a 75 year old OAP I cannot afford to purchase a replacement printer.

A young niece has offered me her Amiga 500, and I have been wrestling with it ever since. I find the manuals contain a lot of information, but none of it is organised in a logical way that helps you to understand what steps have to be taken in a logical sequence.

I have used the icon for the clock and tried to set

the time, but with no success; it does not tell me whether this only applies if I have an expansion with the battery backed up clock.

I managed to load Kindwords and to type a couple of pages which I printed. Now I wanted to save this, and on the menu bar selected "Save" only to get a window telling me that a file must have a title - but nowhere can I find how to give my work a title; should this be done first? I cannot find out how. Should I initialise a disk prior to starting my work - if so, at what stage do I put it into the drive? Again, not a clue.

I have been scanning the adverts in the U.K. magazines and there is an offer of disks and books which look as though they may answer my questions. But surely the manuals should tell you what you need to know. It seems that the people who write these manuals are so damn expert that they cannot see the steps that they leave out, assuming that any fool knows.

On page 4-34 in the Introduction Manual you are told about Extended Selection, but not a word about when or why you might need this quality. Have you tackled this problem in any previous issues? By the way, I like your magazine.

A. H. Johnson,
Tas

Dr Help: Your sort of problem is not unusual - it's in the "I got the darn thing second hand and I don't know what to do" category.

Typically, these sorts of problems are exacerbated

by comparative lack of expertise with computers and absence or incomprehensibility of crucial manuals, both of which impediments also afflict you.

The manuals you're referring to appear to be the old AmigaDOS 1.x books, which are OK as computer manuals of the period go but, I agree, not a masterpiece of clarity for beginners - or a mine of information for serious users, for that matter. As you say, third-party books may be the solution.

Or they may not - if they're banging on about versions of AmigaDOS that you don't have. If you upgrade your A500 to Workbench 2 you'll find the manual much better - if you set aside the annoying ring-bound design that makes it a chore to turn pages.

Unfortunately, Workbench 2 upgrades are none too common nowadays, with 3.1 the order of the day. On your machine 3.1 will do practically nothing that 2 doesn't except cost more, but its manuals are pretty good too.

I can answer your immediate questions, anyway. Indeed, clock setting is fairly pointless unless you've got a battery backed clock; it won't hold the time when the machine's off without one.

I can't remember Kindwords' exact menu structure (and I feel for you - it's a lousy word processor), but all sane programs handle new files thusly. When you create a file it'll be called "untitled" or some such generic name, and it will not be saved to disk.

When you first try to

save the file, you should be able to give it a name in the where-to-save-it requester that pops up; some programs won't let you save unless you've given the file a name, some will just save it with its default "untitled" name.

Once a file has a name, all subsequent save operations will save it on top of the old version, keeping the name the same.

There's another save-related option on the vast bulk of programs, "save as". This lets you change the name of a file you've saved before, but in severely mentally challenged software (like, for example, Kindwords), you may HAVE to use the Save As option the first time you save in order to make clear to the program that you really do want to save this file. Sheesh.

Extended selection lets you select several icons at a time - in AmigaDOS 1.x it's done by holding shift as you click the icons one at a time, and in AmigaDOS2+ you can also do it by dragging a box out around the icons in question. In 1.x it's not an enormously useful feature, but it does let you select several files at once to delete or copy, for example.

Problem solved!

This is a short note to thank you for answering my problem in the last issue of Amiga Review. I was "Dodgy Drive XVII". I tried your suggestion of replacing the SCSI cable and I still have the same problems.

Not to worry. It's annoying, but my main worry was that it might damage the hard drive or A500. You

said not to worry about hurting the drive and that it and the computer are in no danger. Don't you worry, as I won't attack you in any way if something does go wrong!

I bought a Canon BJC-4000 printer on the 18th December. Seems like heaven compared to the Star LC-10 dot matrix I had before. Anyway, it of course only came with MS-DOS and Windows printer drivers. Canon have Amiga drivers on their BBS, but at the moment I am waiting for my new modem to have its delayed voice upgrade chips installed.

Anyway, I set up the printer, but had no driver. I had another, older Canon driver but it didn't work. I ended up getting the drivers from the sysop of AFX BBS in Port Macquarie, whom I happened to meet in the newsagent there (we only go there about 5 times a year!).

Before I received the drivers my word processors started hanging when they were first loaded, and some PD programs also failed.

They would load when I ran them again, but the old hanged version was still there taking up memory and slowing down the computer a lot. Some PD programs also failed.

I thought I'd stuffed the computer up changing the drive cable! I didn't want to have to spend any more money on the A500 unless I can use it on a new Amiga (I'm planning to buy one of the RISC machines when they come out - a long wait I know, but I'm sure it'll be worth it).

That is why I am not

buying a ROM upgrade as you suggested. Anyway, I was pleased to find it was just the printer driver or all to do with the printer anyway. All worked fine once the new driver was installed.

The main reason for my letter is to thank you for trying to solve my problem. At the beginning of your answer you said "yippee, another hard drive moving in mysterious ways. I should buy a lottery ticket". Well, I don't know if you did buy one, but I've sent you one anyway. Thank you and good luck!

Anthony Flanagan,
NSW

Dr Help: Your incorrect printer driver was probably sending a message to the printer and getting the wrong or no acknowledgement back, and not letting the word processor or other program start until it got the acknowledgement it would never receive, thanks to the different model of printer at the other end of the cable.

Running the program again resulted in the driver not doing that check, because the printer port was in use or it could only have one instance of itself running or some such reason, and so the word processor worked that time.

But since the hanged driver was still sitting in the background yodelling down the printer cable at the top of its lungs, your machine slowed down.

Oh, by the way - the lottery ticket WON... another ticket. Which didn't win anything. You've still got your mysterious SCSI problem, I've still got no Lamborghini.

Everything's write protected!

I have an Amiga 500 with an A501 RAM expansion. Whenever I try to back up anything, such as this letter, using Textcraft Plus the Amiga says "Volume Textcraft Plus is write protected" - but the disk is not protected; I make sure the hole is covered.

Also, when I try to format a disk my Amiga responds "Disk in DF0 is write protected." The same thing happens when I use Workbench Notepad - it will not save. I have used a virus checker but everything seems OK.

Les Forrester,
Vic

Dr Help: You've probably got a dodgy drive or a dodgy cable. Either the little pin switch that presses up onto the disk and detects the write protect hole has died or something down the line means it appears to be in the up position all the time. In any case, the result is a drive that thinks every floppy disk's write protected.

If it's just a gummed up switch it should be easy to fix, likewise if it's just a connector that needs to be wiggle.

If the switch needs to be replaced or some other component's carked it, it's a job for someone who knows which end of a soldering iron to hold. You shouldn't need a whole new drive, though.

Sticky hard drive

I'd like to start off with a thank you for the advice you gave me on the OpalVision board in the September 1995 issue. I now have the OpalVision

working in my machine, but figure this one out.

I bought a VXL-30 accelerator which uses the 68000 chip. I had it installed in my machine and tried the OpalVision board again, and it now works using the 68000 and 68030 processors on this board, but when you take the VXL-30 board out and replace the 68000 it refuses to load correctly.

Anyway, I have an A1200 here with a very temperamental hard drive. When you first turn the machine on at the power supply, the hard drive used to power up but not boot up. Reset the machine and it would boot. That was then - now it will not power up; give a few taps on the casing and the hard drive light will light up; sometimes it powers up and sometimes it boots up as well, and I know it's not a loose connection.

S. Muhling,
Old

Dr Help: The Opal problem's entertaining - it could be something to do with a dodgy socket - the machine pins on the VXL-30 board make good contact with the motherboard socket, and the 68000 makes good contact with the VXL socket, but the 68000 doesn't make good contact with the motherboard socket.

Or maybe it's a timing thing. Who knows. The A1200 hard drive is much more comprehensible.

There are three basic levels of hard disk functionality; perfect operation, motor run but no spinup, and no spinup. Usually the drive will be in situation one (good) or sit-

uation three (bad).

Spinup is the process by which the drive gets its platters to their operating rotational speed. If it rotates the platters but never reaches operating speed and becomes accessible, it hasn't spun up.

Bigger drives often go click once they've spun up; the little 2.5" stock units in 1200s just produce that distinctive tiny-turbine whine as the motor revs up and the next thing you know they're booting.

Figuring out exactly what a hard drive is and isn't doing can be tricky; I own a stethoscope that I've used more than once for the purpose.

Older hard drives sometimes suffer from what's called "stiction", which is what happens when the drive just can't get its platters spinning after it's been powered down for a while.

Stiction can with luck be temporarily cured by tapping, shaking, warming or cooling the drive, and if you leave the machine on all the time it's not a problem. We've got an old 210Mb Maxtor in this very office that's got a mild case of the disease.

More modern drives are far less likely to stick, but it sounds as if that's what your 1200 drive's doing. A 1200 doesn't suck much power so the cheapest solution ought to be to get the thing going by tapping, twisting and cajoling and then just leave the blighter powered up all day, with the monitor off when the machine's not in use.

This also reduces mechanical stress, as you don't have components

getting hot and expanding and cooling down and contracting all the time.

If the problem gets intolerably bad, you could always get a new drive for the 1200. Those little 40Mb IDEs aren't very expensive, and considerably bigger ones can be had for a few hundred bucks.

Dirty jumpers

In your Dr Help column a Ms S Muhling was having trouble with a high density drive. I had similar problems and returned the drive to the supplier, who returned it to me saying it worked fine in his A2000. I refitted the drive to my A2000 and had the same problem as before. It took me a couple of hours to figure out the problem - faulty contacts on the jumper pins on the back of the original floppy drive. They may have been tarnished.

The cure was simply to slide the jumper on and off

the pins several times. The same was done with the ribbon cable plug in the back of the old floppy drive.

An electrical contact spray may have helped. Most A2000s have been around for at least 2 years or more and any unconnected pins or sockets will have some tarnish on them, inhibiting good electrical contact.

David McBurney,
SA

Dr Help: Ahh, more answers. As you say, A2000s are getting on a bit these days and corrosion takes its toll.

On edge connectors - which are just a piece of circuit board shaped to take a connector - you can clean contacts with an abrasive pen eraser, but pin-type connectors aren't rubbable and so plugging and unplugging a few times is about as good as you'll get.

Fast answers to Amiga questions.

The premier issue Multimedia and Desktop Video magazine will be published in June. Inside you will find many of the regular columns that use to be in Amiga Review magazine, including Dr. Help.

So, keep those letters and faxes coming and we'll keep answering them in the new magazine.

If you want a fast answer to an Amiga question, please avoid calling our editorial offices. Our writing staff are already very busy meeting deadlines, so we don't have time to chat about technical problems.

However, we're happy to respond quickly to email. If you have a question, please direct it to our main email address:-

pcreview@world.net

Subscriptions and advertising information can also be requested at this address.

How to read PC ZIPS

By Daniel Rutter

Do you have a Zip drive on your Amiga? Quite a lot of you have, judging by sales - but plenty more people have Zip drives on PCs. And 96Mb Zip disks therefore look like a pretty spiffy way of moving lots of data from one platform to the other.

AmigaDOS from 2.1 up has come with a cutdown but perfectly useable version of the commercial program CrossDOS, which most people use to read MS-DOS formatted floppies, full stop. The CrossDOS file system, though, is eminently capable of being used on any sized drive, and so you can use it for SyQuests, Bernoullis, or Zips.

To mount a PC Zip on your Amiga, you can use the following Mountlist entry:

```
ZIPC: Device = <name of your SCSI device>
      Unit = <5 or 6>
      Flags = 0x00000000
      Surfaces = 1
      BlocksPerTrack = 1
      Lowcyl = 0
      Highcyl = 196607
      BufMemType = 0
      Blocksize = 512
      Mask = 0x7FFFFFFC
      Maxtransfer = 0x0001FE00
      Reserved = 6
      Filesystem = L:CrossDOSFileSystem
      Stacksize = 2000
      Priority = 5
      Bootpri = -20
      Globvec = -1
      Buffers = 128
      Dostype = 0x4d534800
      Mount = 1
```

#

Make sure you put in the name of your SCSI device, without the angle brackets, in the first line, and 5 or 6,

without brackets, on the next line. The pretty indenting doesn't really make any difference, since space and tab formatting's ignored.

This is how the text should be formatted if it goes in your Mountlist; if you want to make it a DOSDriver, type it in as a little text file of its own, without the unit name at the start of the first line or the crosshatch at the end.

Just name the snippet of text according to what you want the PC Zip device to be called, and copy another DOSDriver's icon with the same name and .info on the end.

The name is the tricky bit. You see, the version of CrossDOS that comes with Workbench 2.1 and above is variously reported as working with removable media other than floppies, or not working with removable media other than floppies.

The reason for the confusion is that this version ONLY lets you use non-floppy media if you end the device name in C.

So, if you make the name at the start of the Mountlist entry or the filename of the DOSDriver Zipc, ZIP-PC, Chirac or Frankensteinc, it'll work. Make it PCZip, Fred or ZPC1, and it won't. At all.

This goes for any other PC formatted removable cartridges, too.

Hey, don't take my word for it, try it out.

Who can figure it?

If you want a PC Zip disk to practice on, remember that all Zip disks

come preformatted for MS-DOS, and by default contain a little inspirational text file on Making The Most Of Your Zip Disks that features the word "stuff" a load of times. If you can read the text file, you've probably got it right.

But there are still things that don't work, and nobody seems to know why. Preformatted Zip disks as they come out of the shrinkwrap are fine, no problems. But if you reformat a Zip disk on a Windows 95 PC - presumably because you previously formatted it on an Amiga and now want it back in PC format - the Amiga won't read it.

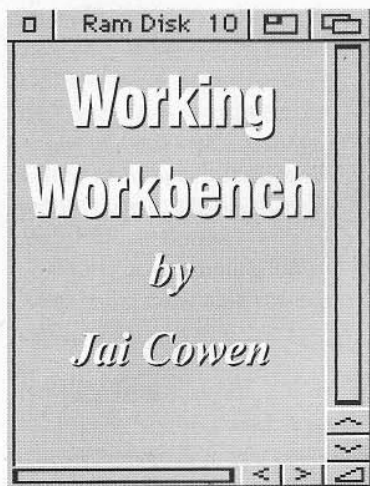
The PC's fine with it, but the Amiga thinks it's not a DOS disk, full stop.

Maybe this is just Windows 95, maybe it's PC formatting in general; since all the PC using Zip-freaks who'll let us tinker with their machines are running Win 95, we can't be sure.

And Amigas can't seem to format PC Zips themselves. The format goes fine, but at the end the disk initialisation fails, reporting "disk not validated". This, also, is presently a mystery.

If you can enlighten us about these strange features of Amiga PC Zip compatibility, please give us a ring.

But in the meantime, it seems that once you reformat a fresh Zip disk to anything at all, you've just made it useless for PC-Amiga file transfers.



Launching Programs

When you first get a hard disk, you will think that no one in the world can touch you. Your Amiga will load Workbench in seconds and all of your fonts, libraries and other system software will be in one place.

Soon enough though, you'll find yourself working your way through a series of drawers to find one executable. Those who are familiar with some of the later operating systems, will be aware that you can leave an icon on the desktop. This is done by selecting the Icons/Leave Out menu option. Workbench creates a back-drop file in the root directory of the disk containing this left out icons. This left out icons can create a lot of clutter, especially if you're running in medium-resolution not high-resolution mode.

If you fancy yourself as a bit of a propellor head, you may instead choose to set up Commodore's own

FKey program which can be found in your tools/commodities drawer. FKey is a simple hotkey management program which allows you to define hotkeys that you can assign a command to. Some of the more popular functions are cycle windows, run program and run script.

If you only have a few programs and scripts that need to be quickly accessed on a regular basis, FKey is quite adequate and you've probably already go it! For Workbench 2.x and higher users, just plonk it into the WBStartup drawer and it'll run every time your computer boots up.

Of course, if you have enough applications, you'll find FKey is not only limiting, but rather clumsy. Trying to remember a dozen hot key combinations is pretty much impossible.

The next step up is to land yourself one of the excellent range of so-called program managers available for the Amiga. To my knowledge they are all shareware or public domain, so they won't cost you the earth and you can try them out before you have to pay anything substantial.

The most popular program launcher would have to be Stefan Becker's Tool Manager. Despite it's size, Tool Manager is worth every kilobyte of disk space it devours. With a little effort configuring the program, this solution will happily launch anything you can throw at it, and can elegantly deal with hundreds of programs.

Tool Manager does all these by creating what it calls docks. These are

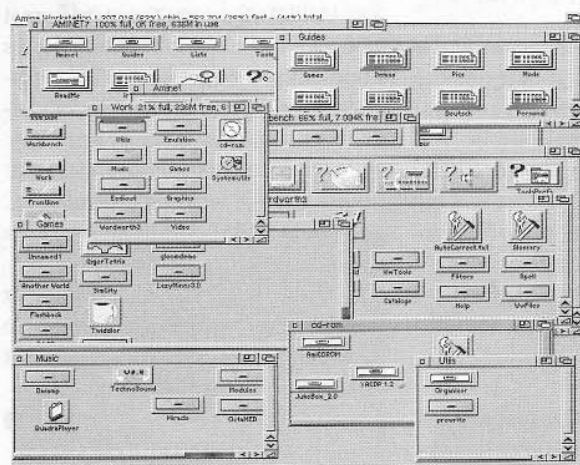
windows which can contain buttons with either a normal AmigaDOS icon, text or special Tool Manager icons, of which there are a many to choose from. Tool Manager is well known in the Amiga community, so you're bound to find someone who has used it. However, it's not everyone.

I for one don't use it because of it's size. I only have a basic A1200, and I can't stand having a slug of a utility running all the time. I also find that adding new programs to the executable list and inserting them into a dock is an annoying and tedious task. This is why you won't find it in my WBStartup drawer. Fear not, slow Amiga users, there are alternatives to the almighty Tools Manager.

AddTools allows you to add options to the tools menu on your Workbench screen. It lacks a pleasant GUI - the configuration is set in a text file which you can edit. It's pretty basic, but coupled with FKey's hotkey ability, you could have a workable program launching solution. But all options considered, my preference is Tools Daemon.

It's an excellent program and I think it should be running in the background of every Amiga. Once it's been installed, you can set about entering all of the paths of your executables or simply drag their icons into the attractive and powerful preferences GUI. It doesn't have docks like Tool Manager - but I like it a lot.

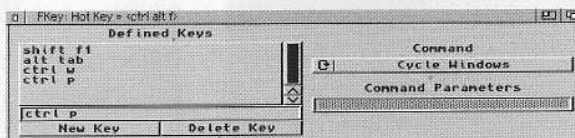
Ever since I first got my 1200, I have been using Tools Daemon and it has never once caused a crash. I be-



LEFT: If your Workbench looks like this when you go to find a program, it could be time to try a short cut to launching applications.

TOP RIGHT: ToolDaemon and ToolManager up and running.

BELOW: The Workbench program called FKey - included in Workbench 2.x and higher.



lieve it has substantially sped up the time it takes to operate my computer. It allows me to run several programs either by a CLI or Workbench command with one hotkey.

This is most useful when you have a poorly written old game which refuses to work unless you have it on a low resolution display with no mode promotion.

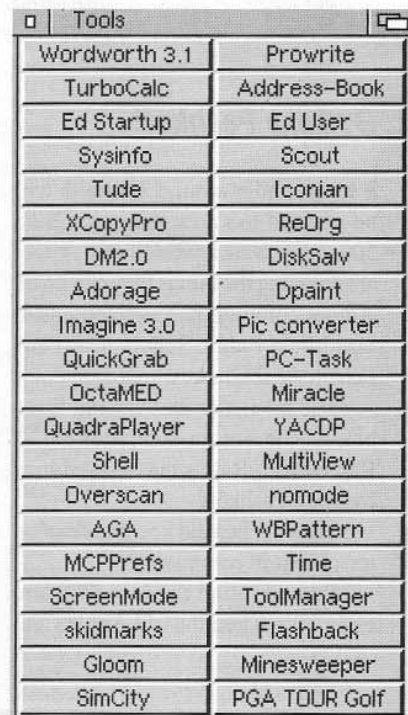
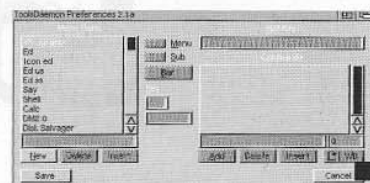
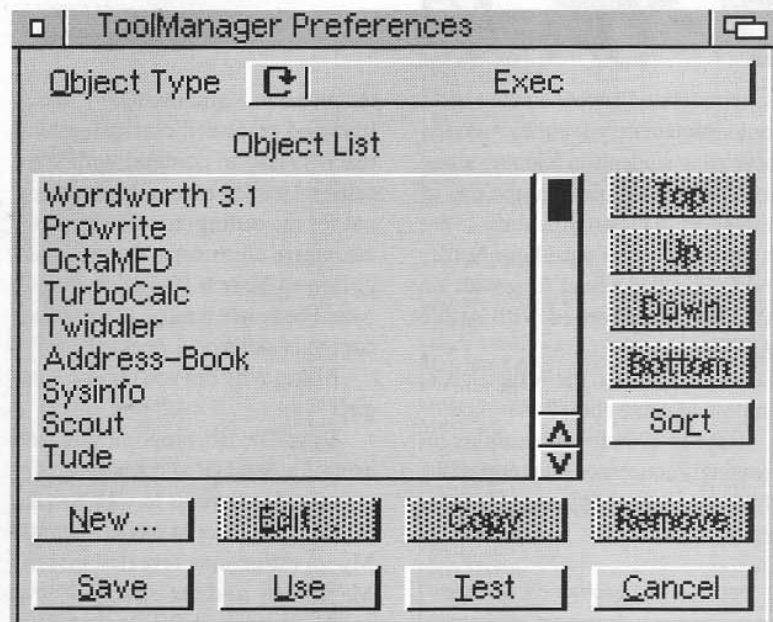
All that is required is to create a preset which disables the appropriate functions, and get Tools Daemon to run the two presets before the game.

Tools Daemon also handles all my programs like Wordworth, Dpaint, TurboCalc and Organiser. Each of these programs can be launched by just pressing a key combination.

All the preference programs in my prefs drawer can be found in a special prefs menu I made up which gives quick and easy access to each of my configuration programs on demand.

It doesn't allow you to include selected executables in different menus and docks but I find it to be perfectly

adequate for launching any of my fifty two programs that I have in various menus.



**Scala, Lightwave, Final Writer,
Pagestream and others ...
now on the PC.**

**Read about the Amiga version and the
PC version in Multimedia and Desktop
Video magazine.**

Hands on Education

By Mike Pashkoff

► Amigaphiles around Australia will be pleased to know that more than 500 students each week in one school are enjoying the things they can do on Amiga computers. This happens at Smithfield Public School near Fairfield in the south-west area of Sydney.

The instigator and driving force behind the Amiga computer lab is Ray Howitt. Ray is interviewed here by Mike Pashkoff.

Mike: When did you first develop an interest in computers?

Ray: Around the late 70's and early 80's when the old Apples and



Commodore 64's were all the rage. I could immediately see their value in motivating students in learning situations. I have encouraged the use of computers in classrooms since 1985. In the early days I used both Apples and C 64's, had a brief fling with the Atari but later settled with Apple 2GS's.

Mike: How did the Amiga lab. at Smithfield come about?

Ray: In 1991 I was becoming increasingly concerned that most of the children at my school were not learning computer skills. Teacher apathy,

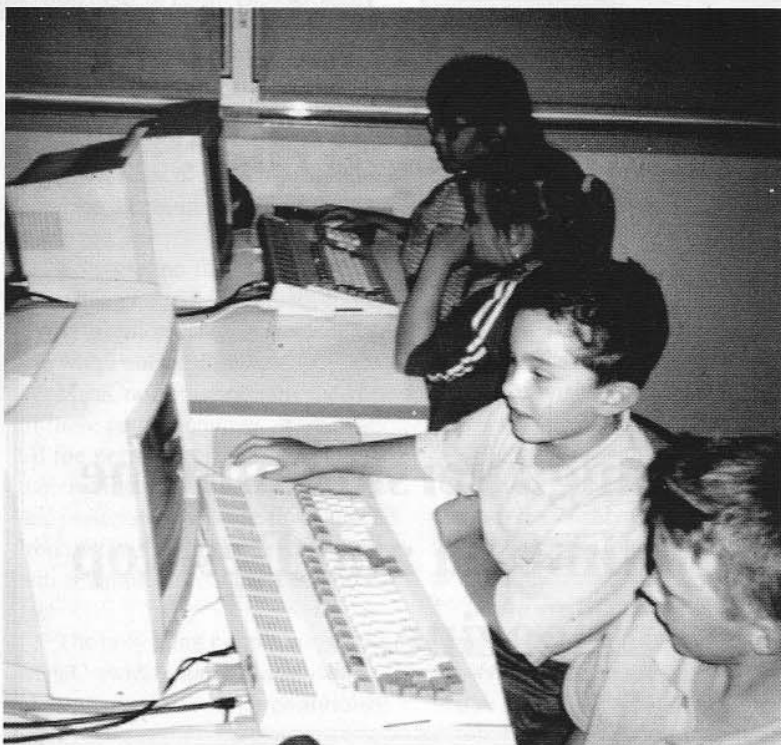
technophobia and the heavy workload and crammed curriculum that teachers had to contend with were causes. I made a request to my principal for the setting-up of a computer lab. where all students from Kindergarten to Year 6 (5-12 year-olds) would be taught a range of important computer skills on a weekly basis.

Mike: Why did you choose Amiga?

Ray: The lab. proposal was built around a concept and I had no preconceived notions as to which brand of computer I would buy at the time. My investigations revealed that the Macintosh and its software was grossly overpriced, PC's were too unfriendly for little kids, the Atari had just about disappeared, whilst Acorns were great but seemed to lack a user-network.

Bronwyn Malliate & Debbie Logan from Commodore came out and demonstrated how students could use the Amiga to draw and animate classroom project material then display it and save it onto videotape. Wow! None of the other platforms could do this without expensive add-ons. Besides - no-one else would come to the school to demonstrate their products.

The Amiga was user-friendly, colourful, noisy and - most important of all - appeared to have a large body of supporters in the form of users and suppliers who were only too willing to share their knowledge, software and enthusiasm with me. The value of this initial support cannot be stressed enough. The lab. was opened in Janu-



ary, 1993.

Mike: How is the lab. organised?

Ray: It has fifteen A1200's with 40 meg HD's and an A3000 for grunt work. They are all networked to HP500 printers. A large high-res monitor at the front of the room is able to display the screen of any Amiga in the room via a video switcher box.

A master monitor switch enables me to switch off all monitors and teach from any computer (usually my own) with the students having to pay attention! It is designed to cater for a full class of 30-32 students.

Mike: Has the lab. become everything you expected it to be?

Ray: Absolutely! Each student in the school (including four classes of 4-year-old pre-schoolers) visits the lab. for 50-60 minutes each week. Word-processing is taught from Year 1 onwards and the quality and amount of work produced by these little ones is staggering! The kinders and pre-schoolers are so confident and capable at loading their own programs and operating them.

By Year 6 students become fast and accurate typists, create and use databases and spreadsheets, generate graphs from data, paint, animate and create interactive slide show presentations of their work. The positive experiences in the lab. have assisted the staff in promoting confidence and self-esteem in the students.

The lab. is very popular at lunchtimes and is often used as an 'incentive' for improving behaviour. It is an ideal place to in-service parents or teachers in computer skills and is often hired by local high schools for teaching and creating video graphics and animations. I never have to motivate or discipline students when they enter the lab.

Mike: What problems have you encountered?

Ray: None worth mentioning. The original A600's and the current A1200's have been very reliable and robust. Software failures are minimal. **Mike:** What software do you use? **Ray:** Final Copy 2 for word-processing, Deluxe Paint 4 for art, animation and morphing, DigiView



and Vidi RT12 for digitizing images, AmigaVision for slide shows and interactive displays, Kidsbase for data bases and Final Calc for teaching spreadsheets and graph generation.

Noddy's Big Adventure is loved by all aged 4 to 10 as is Hoopy Paint. The software is used to produce things! Too many kids are just learning to play educational games and never having any creative input into programs.

Mike: Has there been any noteworthy achievements by students?

Ray: Some boys in 1994 were creating their own shoot-em-up games with AmigaVision whilst some girls that year developed some extremely professional-looking interactive information projects with AmigaVision. Some students display outstanding creativity with art and animation.

Mike: What is the future for the lab?

Ray: We hope to get the 1200's networked shortly and the A1200's replaced every 2 years. We expect exciting new software and hardware to be developed for the Amiga in coming years and we will purchase it and use it if it can have worthwhile educational applications.

Mike: What about the Internet?

Ray: It's important for kids to have an emerging understanding and hands-on experience with the Internet but we have Macs and Dos boxes in

the school which will be doing just that later on this year. When the A1200's are networked I hope to set up Internet simulation activities.

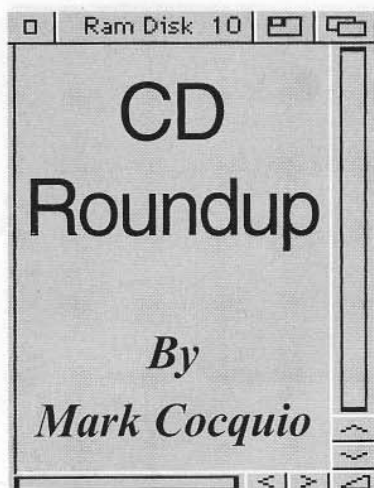
Mike: Would you like to acknowledge anyone in the Amiga community who has been especially helpful?

Ray: Peter Scott at Softrade in Newcastle wired the lab. initially and is brilliant. Mark King at Amadeus has been very helpful with supplying software. Bronwyn Malliate (now Bronwyn Threlfo) has been inspirational!

Everyone associated with Amigas around Australia has been helpful. **Mike:** Any messages for other teachers considering Amigas for their schools?

Ray: Yes. Amiga 1200's are the best computers for primary schools if you want students to do the things which we do at our school. There are 20 000 programs out there for the Amiga. My students will only ever get to play with a tiny fraction of the educational programs available.

I used to be annoyed at the apathy in educational circles towards Amigas but I now see that apathy came about from prejudice, ignorance and false rumours. I looked above all that and the students at our school have and will continue to receive the benefits of these brilliant, yet inexpensive computers.



► Freely distributable software compilations make up the majority of new Amiga CD-ROM titles these days - and there's quite a few of them. 10 of the latest crossed my desk recently; without further ado, here are the reviews!

Media Team - Ultimedia III + IV

The Amiga is well suited to multimedia presentations, so it's no surprise to see specialised discs hitting the marketplace. Among them is the Ultimedia series from Media Team.

This double CD comprises just over 1 gigabyte of data, featuring countless images, textures, animations, sounds and utilities. All are indexed and can be previewed or viewed easily from the included software. Graphics are provided in multiple formats - AGA or ECS for animations and also 24 bit for pictures, while sounds are provided as

22kHz or 44kHz samples.

There are a number of graphic and sound utilities provided, as well as datatypes for owners of workbench 3+. There's also some bonus audio tracks on the discs - and as a free bonus, they're worth what you pay...

All in all, there is far too much to list on these discs; see the accompanying pictures for a taste. I was impressed with the quality of the package in general; everything is very logical and it all works. If you work with multimedia then this set is a must.

Total data 540582686 bytes (disc I), 544251908 bytes (disc II). RRP \$69.

Weird Science - Multimedia Toolkit 2

Not to be outdone, the blokes at Weird Science are jumping on the multimedia bandwagon as well with their Multimedia Toolkit 2. This is also a double CD set, with a tad more data than Ultimedia (thanks to no bonus audio tracks!).

Toolkit 2 is also of excellent quality, and is more suited to the power user than the Ultimedia offering. The interface is a little less slick, although just as useable, and mostly runs through Amigaguide.

Included is the mandatory truckload of images and textures, all available in JPG, HAM8 or 256 colour formats, with preview index images provided. Pictures are also grouped by category.

Disc II includes enough clip art to

keep you occupied for days, in mono as well as colour formats. There's even a directory full of EPS (Encapsulated Postscript) files, which allows this clipart to be fully scalable when used with an EPS capable word processor such as Final Writer. The only disadvantage is that you can't preview it without such a program.

Still on the word processing front, there are fonts galore in various formats included as well.

In the audio department, there are tons of samples, grouped alphabetically. One of the larger drawcards for the set is the included full version of OctaMED 5.04, with many accompanying modules. There's also a MIDI directory, with songs, samples and editors.

For the creative among us there are also large numbers of objects in LightWave and Imagine formats, as well as impressive previewers. There's also a number of VistaPro DEM landscapes included.

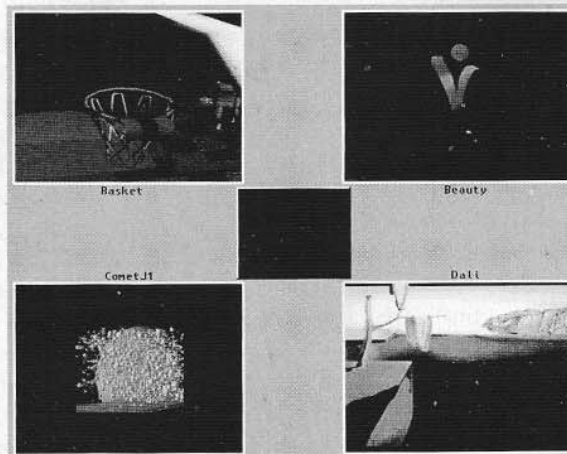
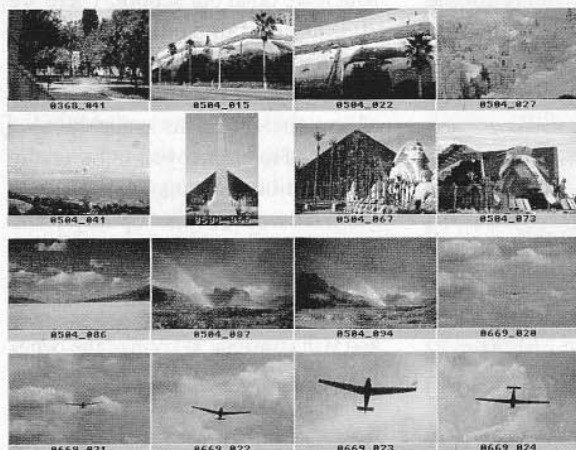
All up Multimedia Toolkit 2 seems to have just about everything you could want or need for a presentation, and heaps of other stuff besides. It's certainly one of the better offerings available in this department at the moment.

Total data 663865258 bytes (disk I), 625173077 bytes (disk II). RRP \$39.

Weird Science - CD Animations

Yet another offering from Weird Science is their CD Animations double pack.

Ultimedia III and IV - a must for multimedia collectors.





Top/Bottom; Multimedia Toolkit 2 - good quality, plenty of images, textures and EPS clip art.

The two discs are filled with hundreds of animations in various formats, and utilities to view them.

There are plenty of Amiga ANI-Ms (with the AGA ones kept separate) as well as the required viewers. The program BigAnim is included to allow people without heaps of memory to view even the hugest of these, although you'll need a reasonably fast Amiga and CD-ROM drive to see them at anything resembling full speed.

There are a number of Amiga-specific animations on the disc, such as those from Deluxe Video and MovieSetter. They include a collection from Eric Schwartz, famous for his Aerotoon and Amy the Squirrel animations.

In addition to all this Amiga stuff, there are a large number of FLC animations included, and an even greater number of FLIs. These formats are native to the PC, but can be viewed with tools included on the disc, although they tend to play a little on the slow side.

Viewing any of the animations in the pack is child's play; the Ami-

gaguide index has buttons to play them all, as well as an explanation of the format and any other relevant information.

While the overall quality of the pack is good, the quality of the animations themselves varies wildly. I found that most of the animations were good to excellent, but there are some that look like they were done in 20 minutes with the pencil tool of a kiddie paint package. In particular, the FLI animations seemed to be of a generally lower picture quality, but that's probably an age thing, since many of them have been around for years.

Agewise, there are plenty of animations here that you may recognise; the Eric Schwartz movies are certainly quite a few years old now, but generally speaking the emphasis is on qual-

ity, so the oldies-but-goodies make it in.

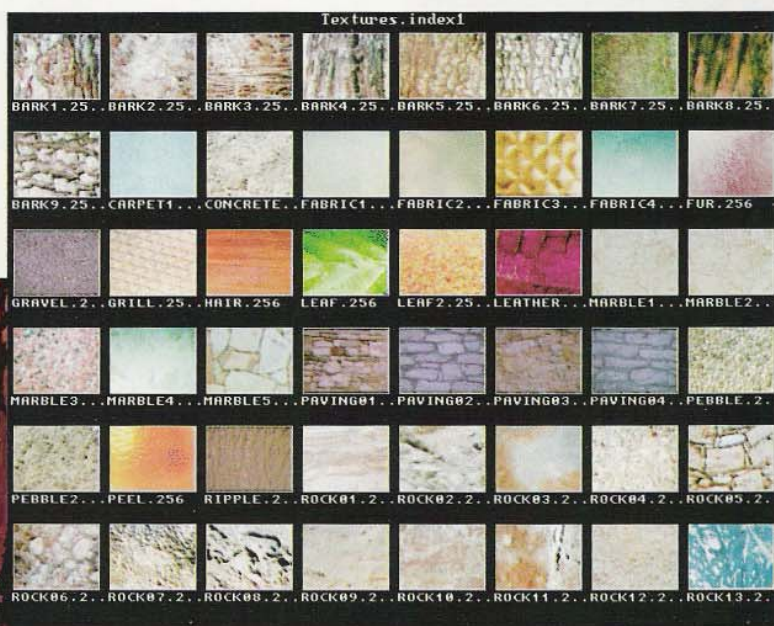
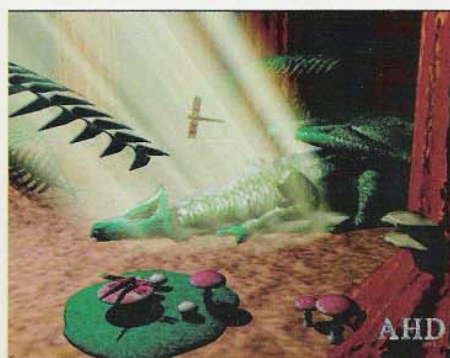
All up, I'd have to recommend CD Animations to anyone interested in the field. It provides a showcase for some of the unsung talent of the computer world - there's plenty of impressive stuff here.

Total data 436495144 bytes (disk 1), 631225713 bytes (disk 2). RRP \$39.

Schatztruhe - Meeting Pearls III

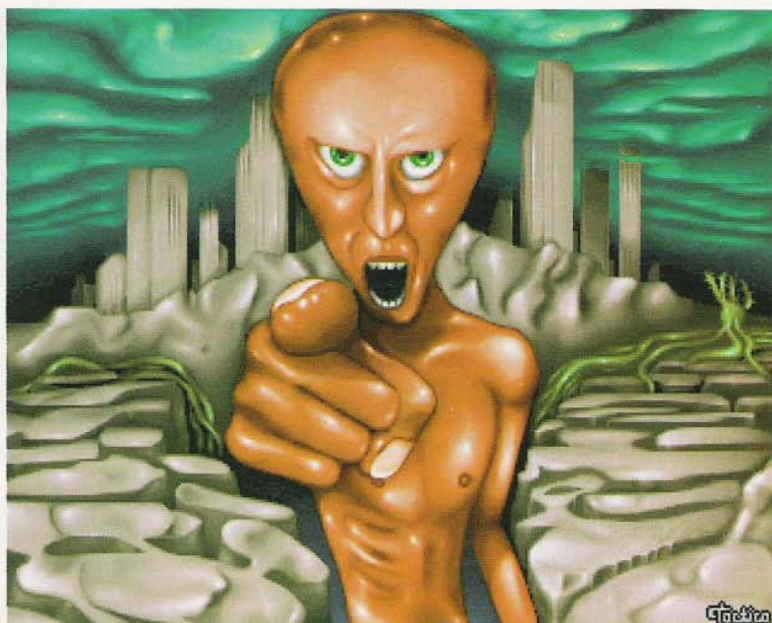
Discs in the Meeting Pearls series have always been something of a lucky dip - but one with a lot of good prizes.

Meeting Pearls III is another one of these CDs, with a bit of everything included. The disc is quite well put together, with a special installer to





Escher Knot



LEFT: Weird Science Artworx TOP/BOTTOM: Almathera Euroscene 2

There's a special version of CDWrite (a program to allow "writing" to CDs via hard disk patch files) included to allow the user to customise the CD; one section of the installer gives the user the option of restoring all the file protection bits and comments that were lost during mastering.

The search interface is also well up to speed, with a special MUI program to do most of the keyword searches. Amigaguide listings are also included for a more general browsing.

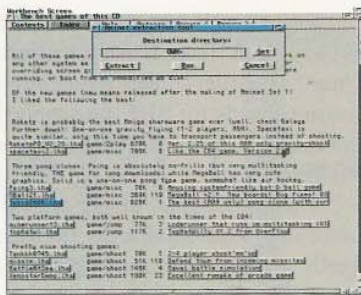
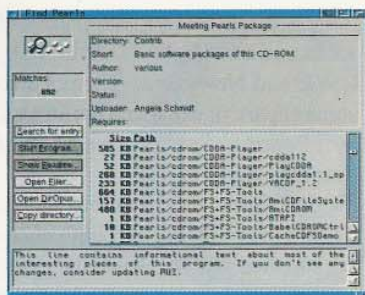
There's far too much on Meeting

Pearls III to list here, but suffice to say that there are plenty of animations, archivers, benchmark programs, CD-ROM utilities, programmers' resources, games, pictures, music MOD files, samples, general programs and even home pages and text files - although to get the most out of these you'll need to speak German!

One of the nicer goodies included is an updated version of the Internet Movie Database - 39Mb of data that everyone should own.

If you're after a bit of everything in a CD-ROM, the Meeting Pearls





TOP: Meeting Pearls III and the Gamer CD interfaces.
RIGHT: Examples from the Anim CD

series won't let you down.

Total data 592126735 bytes. RRP \$49.

Weird Science - Artworx CD

In the art department, Weird Science (the English software house - nothing to do with the appalling movie) have assembled a collection of computer generated images from all over the world.

The disc is well put together; everything is accessible from the AmigaGuide index, and pictures are grouped logically by category - in particular ECS and AGA images. All subdirectories have an index image too, making it much easier to find a particular picture from the thousands included, and the picture quality is mostly very good.

In addition to the usual collection of full-screen pictures, there are a number of brushes and textures for

those with a creative bent. And if you're fond of going crosseyed, there's also a whole heap of SIRDS and other stereogram-type pictures to keep you amused.

All in all, the Artworx CD is well done, and easily used by novices and experts alike. As the box says - if you have a colour printer, this CD is a must.

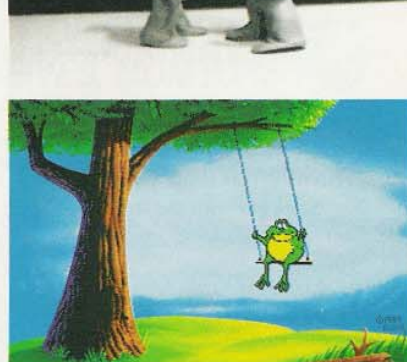
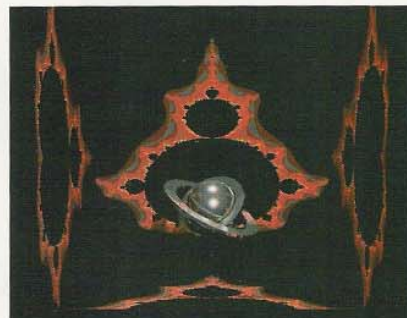
Total data 647022071 bytes. RRP \$29.

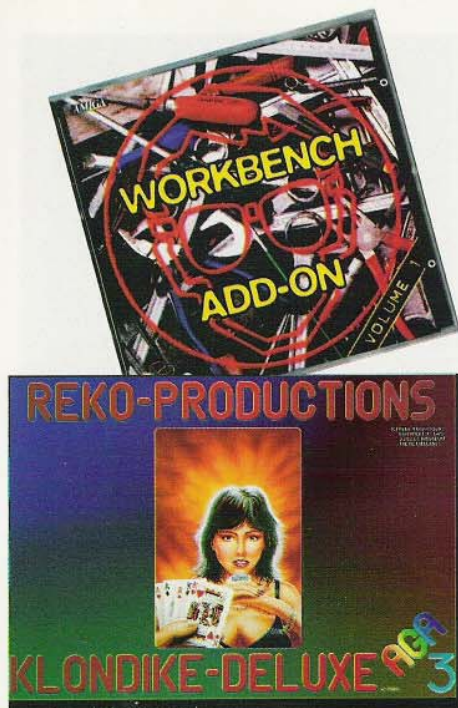
Almathera - Euroscene 2

On a similar, yet slightly different note, we have Euroscene 2 by Almathera. While Meeting Pearls is a more general sort of lucky dip, Euroscene caters more for the power users, and the people in or interested in dAsCeNe!

There's more than 600Mb of data on this disc, and it's all archived, even the MODs and pictures. On the plus

Lemmings score more demo coverage in Meeting Pearls.





Workbench Add Ons is ready for BBS use.

side, this means they could jam more stuff onto the disc, and it's also BBS ready, but on the downside it means it's a pain in the proverbial to look at anything quickly.

Indexes have been provided, but they're all just plain text, and there's no handy search/unpack features as seen on Amiga CDs.

But if you're into da scene, you'll be able to handle a few archives, and 1995 is all here for you. There's piles of demos, MODs and pictures from the meetings of '95. You'll also find a whole heap of diskmags, and more than enough of the best from '95 to keep you occupied for hours (especially seeing as you'll have to unpack everything by hand!).

There's certainly tons of good stuff here - but finding it takes a while, and could be a little more difficult for a novice user.

Total data 642979011 bytes. RRP \$49.

Schatztruhe - Workbench Add-on Volume 1

Sticking with the "grab bag" genre, Schatztruhe are now offering a Workbench add-on CD, the buzz words on the back being "best" and "ready-to-run".

Even though everything is indeed "ready to run" (even if that just means "run the installer"), there are archived versions ready for BBS use supplied for many (but not all) of the packages on the disc.

There's certainly plenty of software here, covering all areas, from the really simple to the annoyingly complex.

On the fairly simple side, there is version 3.1 of the Magic User Interface (MUI), and the NewIcons package.

The new version of MUI features considerable enhancements over the old, including drag-and-drop and a much better preferences system. It's all backward compatible, and it's all there, ready to go.

NewIcons is also ready to install, and if you're after a change from the usual old icon system then this is the one. If you're running MagicWB you can still use NewIcons, AND retain your existing icons, and you can choose just how much of NewIcons you wish to install. Now you can find out what all those cryptic Do Not Modify tooltypes in certain icons were for!

In the slightly more complicated department, there's ShapeShifter, the software Macintosh emulator. While this edition is supplied with a 50Mb diskfile on CD (though not, of course, the copyrighted Macintosh ROM file), I was unable to get it to work properly; in fact all I could get going was a blank Mac screen with accompanying "bong" sound. I probably need a newer ROM file.

The bonus diskfile is hardly mentioned anywhere apart on the back cover of the disc, but it's probably not bootable, and that could also be part of my problem. Putting a bootable partition full of proprietary operating system software onto a shareware disc would almost certainly enrage Apple.

In the make-your-brain-sweat department, Workbench Add-On 1 also contains many programming languages, including Amiga E and the enormous GNU C/C++ package.

There is of course the usual smattering of sounds and modules (well,

quite a few actually), and plenty of icons and backdrops for both MagicWB and NewIcons. There's also some clipart, of debatable usefulness, in IFF format. See the screenshot for a representative sample!

One fairly large drawcard for the CD are the multiple discount vouchers supplied with it. Basically, many of the authors of shareware on the disc have agreed to provide discounts for anyone registering after purchasing the disc; for example, you can register Shapeshifter for \$35US instead of about \$40. The CD booklet is the largest I've ever seen with an Amiga CD-ROM, because of all the discount vouchers.

All up - a great disc. There's quality stuff here, most of it recent, and enough of it to make sure it's pouring out of your ears for some time.

Total data 628622668 bytes. RRP \$49.

Danny Amor's da capo

And now for something completely different - a CD-ROM devoted entirely to creating music. The da capo disc is designed primarily as a tool for creating your own modules, and also as a showcase for existing music.

Good samples are the building blocks of any good MOD file, and da capo features over 2000 of them in five different formats, including Amiga IFF and PC VOC and WAV files. All of the samples are sorted according to what they are, so finding just the right bass drum sound is a bit easier.

In the finished songs department, da capo features more than 1400 MOD, MED and S3M files, sorted by author. Many of these were previously unreleased.

Da capo also features a whole heap of MOD editors and sound utilities in general. Among them is the full version of OctaMED 4.0 and demo versions of the new OctaMED 6. Just about every decent tracker is here, as well as sound datatypes, rippers (programs to "rip" samples or music from a game or demo) and MIDI software.

There's also a bonus audio track

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(uh oh) composed by someone called Gabriel Seher. The track is called "I Love You", and it's copyright and can't be played in public or broadcast, which is just as well.

All up though, a good disc for the musically inclined.

Total data 570627093 bytes. RRP \$49.

Schatztruhe - Gamer's Delight 2

You can only take so much artwork, music and culture on disc, so it's a nice change to see a whole CD devoted to mindless, time-wasting games.

The nice people at Schatztruhe have released a second CD in their Gamer's Delight series, and it's an interesting mix of public domain and commercial games, with more than 1000 in total.

The box loudly proclaims that there are 70 full commercial games on the disc, which is true, although they all turned out to be written by the same guy and you've probably never heard of any of them.

These 70 games are quite playable, albeit relatively simple, and are all completely system-friendly, even to my souped-up monster 1200.

The PD stuff on the disc arrives in the form of a large slab of the Aminet games directory, so if you have an

Aminet disc you'll probably already have some of these files. This also means that they're all archived, but the menu system allows easy unarchiving.

The disc employs two separate index systems - one for the commercial games and one for the Aminet stuff. The menu system for the commercial games is custom-written for the CD, and includes a nice description of each game. You can run the games from the menu, and they will all return you to it afterwards - another system-friendly feature. The games can also be run directly from their Workbench icons if you wish.

The search system for the Aminet archive is the same as used on any of the later Aminet discs - Amigaguide based with the same powerful search engine. Running the Aminet games from the index is very much like the Aminet discs - Russian roulette. Sometimes they work, sometimes they crash. Misbehaving games generally need a bit more installation than the standard system provides; it's usually just a matter of reading the manual.

One snag I ran into was a number of corrupt archives in one of the Aminet subdirectories - whether this was just my disc or not is not clear, but there was certainly no (visible) physical damage to the disc.

Octmed 5 - one of many trackers included on Danny Armor's.

OctaMED Professional V5.04 - Song: <unnamed>

Play Song	Cont Song	01	rhythm_guitar	12504	<Type...
Play Block	Cont Block	4Ch	Inst Params...	Edit Sample...	Edit SynthS...
D	STOP	00:50	R	SPD 059	06
Sg	01/01	<>	Sg	001/001	Sg
				009/060	B
				008/054:	
Edit	Space	Chord	On/Off	1 2 3 4 5 6 7 8 9 A B C D	<> Set Ctr
017	---	000000	---	000000	---
018	---	000000	---	000000	---
019	---	000000	---	000000	---
020	E-2	100000	E-2	100000	C-3
021	---	00202	---	00202B	-2
022	---	00202	---	00202	---
023	---	00202	---	00202	---
024	E-1	10F27E	-1	10000C	-3
025	---	00C32	---	000000	---
026	E-1	100000	E-1	10000B	-2
027	---	00C32	---	000000	---
028	E-1	10C48E	-1	10C48	---
029	E-1	100000	E-1	10000C	-3
030	---	00C32	---	000000	---
031	E-1	10C48E	-1	10C48	---

Chip: 0001010760 Fast: 0011277720

Playing song

Freeze Display

All things considered, the disc would live up to its claim of holding you captivated for hours - the sheer volume of games demands it. Recommended for any games fan.

Total data 241186584 bytes. RRP \$59.

CD-Exchange - Makin Music

Along the same lines, the nice people at CD-Exchange have come up with their own music disc - Makin Music, which the authors confidently bill "Probably the best Music CD in the World!". Guys, the world is bigger than you think.

Makin Music runs along very similar lines to da capo, and has much better documentation. The sound samples are provided in two formats only - IFF and WAV - and are sorted logically into categories.

While da capo sorts its MODs out by author, Makin Music sorts them by module type; MED and MOD are the only two. This system seems to be a little easier.

The MIDI section is far more complete, and Makin Music would have to be one of the best in its category - a large number of MIDI files and editors are included.

Like da capo, Makin Music has many sound utilities included. There are no full commercial programs, but there are plenty of demos and even more shareware utilities; all up, Makin Music and da capo are similar packages, with emphasis on slightly different aspects of computer music. Makin Music would certainly satisfy the music buff.

And there's NO bonus track!

Total data 405328464 bytes. RRP \$49.

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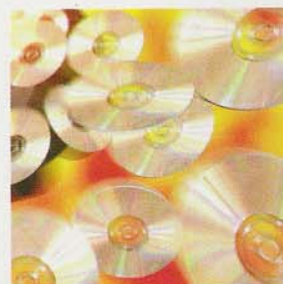


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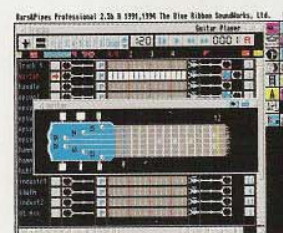
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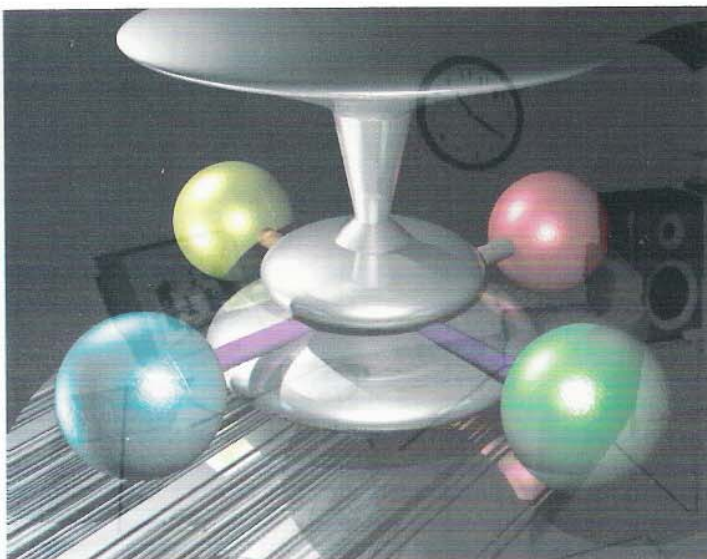
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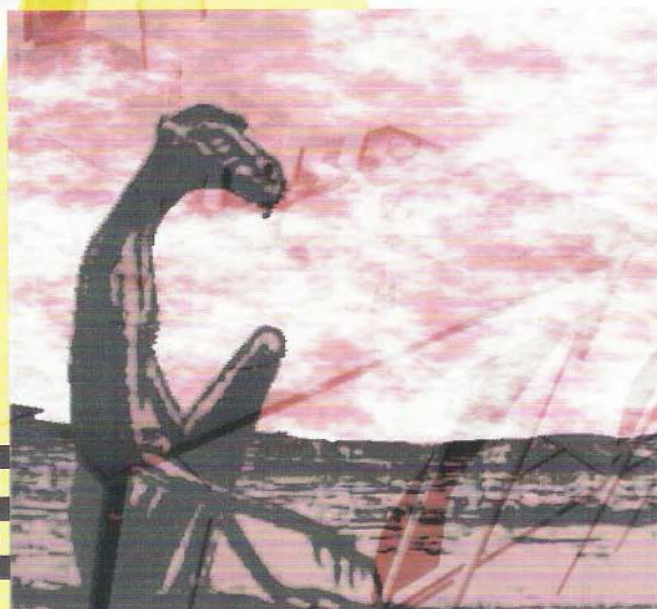
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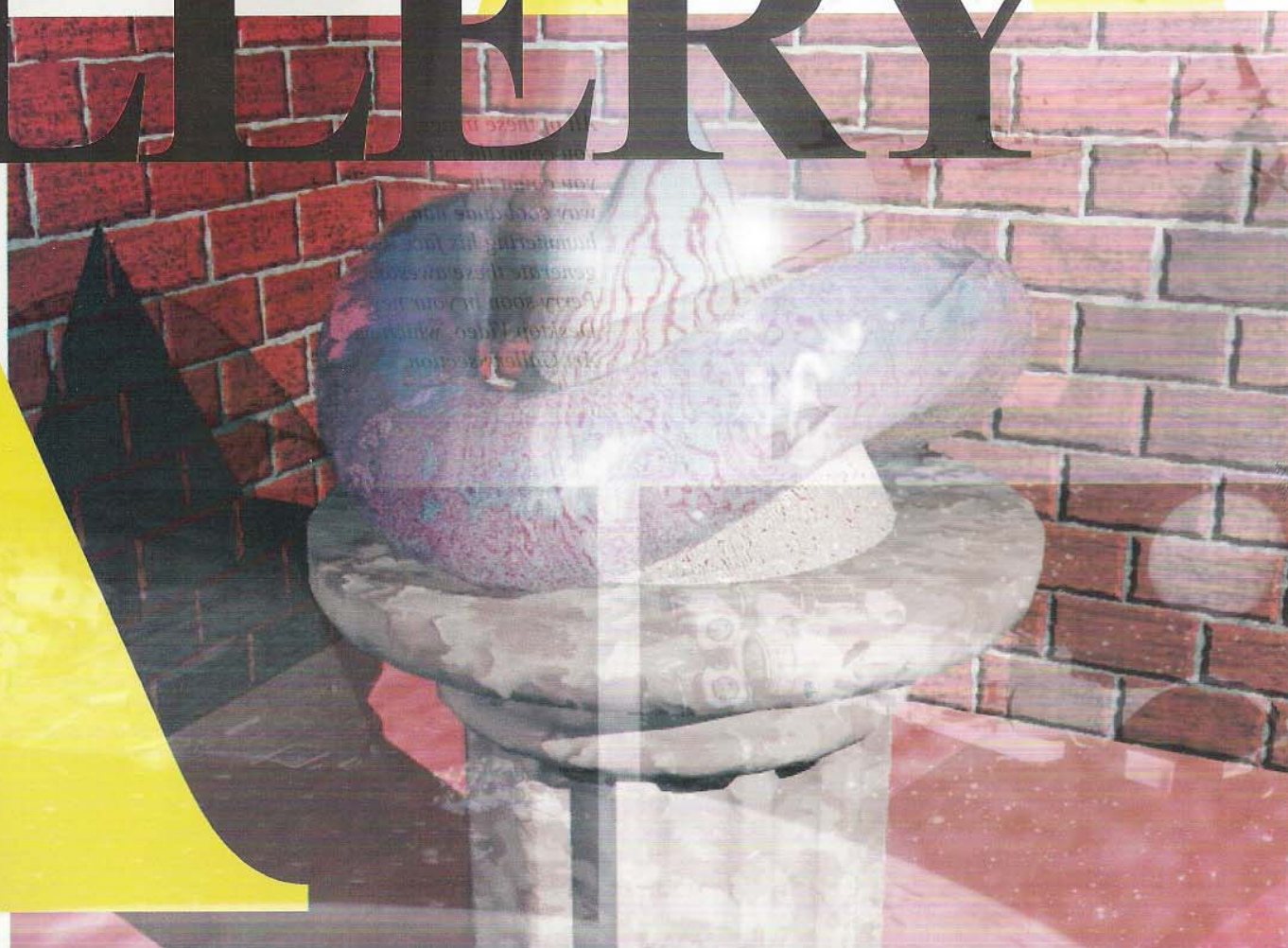


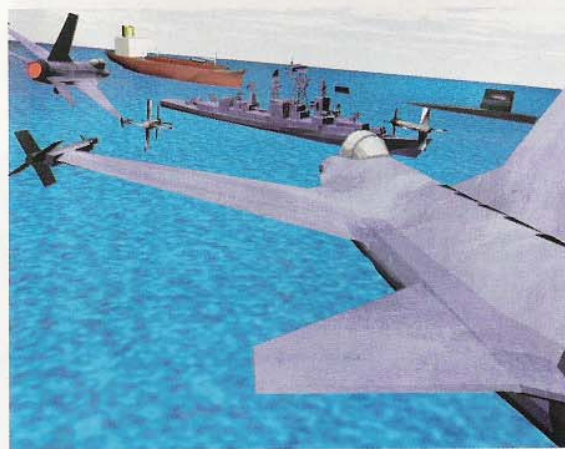
Real3D 1.4 Turbo. 2 hours in normal mode with level 2 antialiasing. Rendered on a 28MHz '020 A1200 by Jonathan Pearce.

TO BE HERE, SEND US A DISK: Make sure you include a readme file with your details! We offer fame, glory and that's it.



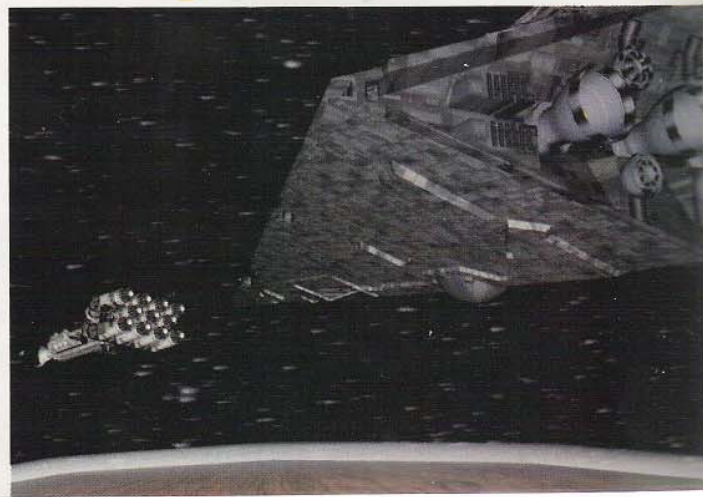
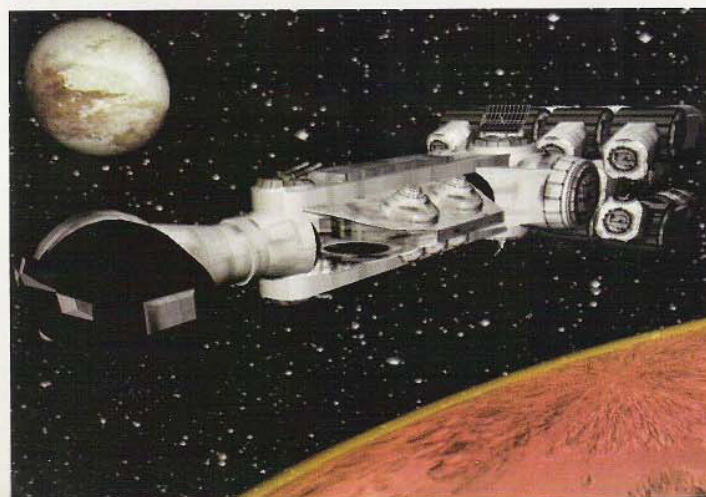
ART GALLERY ALLERY





All of these images were created using **Imagine 3.0**. If you count the pixels you will see all are 800 x 600. If you count the colours, you'll know they're 24bit. A way cool dude named **Perry Wong** spent hours hammering his face with vectors and polygons to generate these awesome pictures. Join the likes of Perry soon in your new magazine - Multimedia and Desktop Video, which will continue to enjoy a regular Art Gallery section.

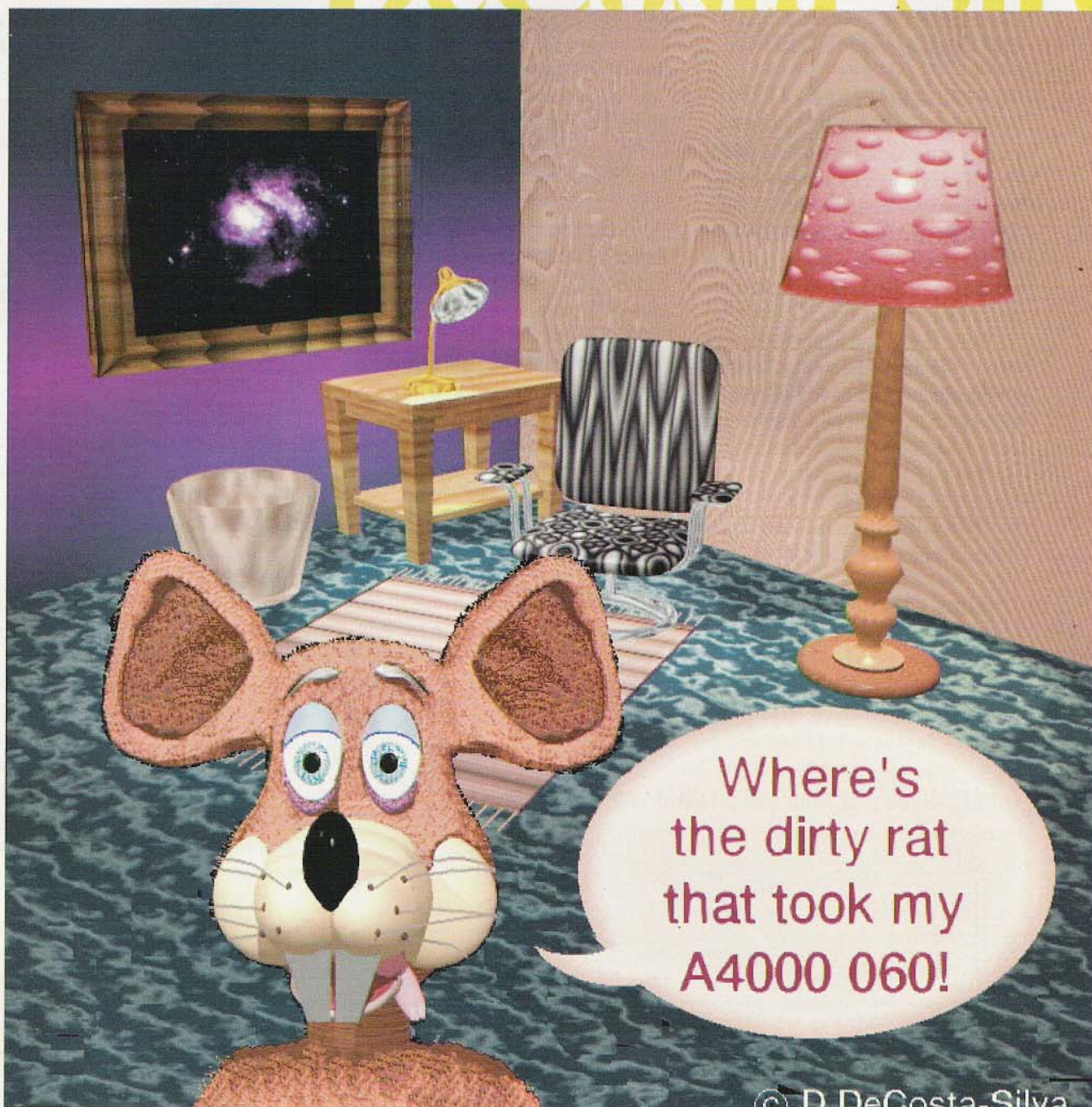
Perry Wong

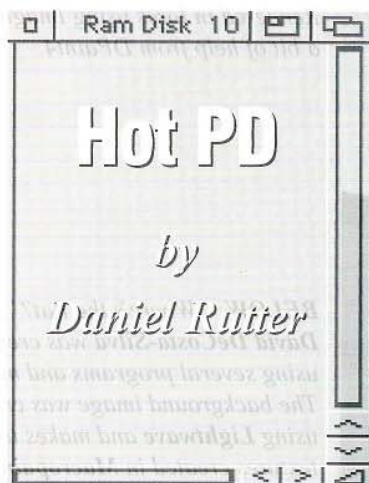




LEFT: "The Robot" by **Kevin Paine**. Rendered in lores using *Imagine2* and a bit of help from *DPaint4*.

BELOW: "Where's the Rat?" by **David DeCosta-Silva** was created using several programs and methods. The background image was created using *Lightwave* and makes use of textures created in *Macropaint*. The mouse was rendered in *Lightwave* as a rough 3D image and then hand painted and composited using *Brilliance*.





Welcome to another instalment of what's new in the world of PD and shareware - this column will continue in the new *Multimedia and Desktop Video* magazine.

*** Picture In Picture

After mentioning Picture In Picture, a little hack that shows you a miniature version of another screen in a window on your current one, I got a fax from the author, Paul Shandi.

He thanked me for reviewing it and urged me to try reviewing the new and improved version 2.2.

Well, this'll teach him to be nice to me; the new version may well be less crashable and have a couple of extra twiddly bits, but it only works on 640 by 256 or 200 screens, which is a big step backward as far as I'm concerned.

It's still small, though, so it's on the companion disks.

*** Virus Checker

John Veldthuis' simply named but regularly updated shareware program Virus Checker has hit version 8.4. Since I last mentioned it it's had a complete rewrite, gained Locale sup-

port, a "one shot" Shell-driven mode, a quick-check Appicon you can drop suspect files onto, online help for everything, and of course piles of fixed bugs and minor twiddles.

You need Workbench 2, and MagicUserInterface to run it.

*** Ecalc

This is a very small program that calculates the statistical constant e (2.71828182846...). There are a surprising number of options.

You'll know if you want it - it's on the companion disks, but you need a 68020 or better to run it.

*** SaveNames

Now here's a handy one. You know what it's like when Amiga-named files move through MS-DOS systems and get their names mangled into the 8.3 character format?

You can get around it by archiving all of the files into a legally named file and not extracting it on the PC, but SaveNames gives an alternative solution.

Run it over a directory and it re-names all the files into something like 517bf4.pcp, leaving the contents intact and legible.

There's an index file that lists in plain text the new and old filenames, so you can use them with some irritation on the PC, and SaveNames can restore the old filenames as soon as the directory makes it back onto an Amiga.

It even tells you how many Amiga and PC disks, low and high density, all the files will fill.

All we need now is a utility to do a similar name-translation for Windows 95 long filenames - which are really short filenames with the long name kept in the file comment.

Program complexity (pick the trendy theme!):

- * Butt Page inmates
- ** Whale detonators
- *** The Oracle
- **** Kibo

** IntuiCookie

Brought to you, appropriately, by USELESS Software, is this latest version of the Amiga's most elegant fortune cookie program. For those poor benighted folk who don't know what a cookie program does, it delves into a data file of short pithy quotes, comments and witticisms and displays one, traditionally eve-ry time you start the machine.

IntuiCookie will contribute in no material way to your operating efficiency, but it'll encourage you to turn the machine on just to see what it says. You'll need Workbench 2 and MagicUserInterface.



*** Nice Zip icon

I've found a nice MagicWorkbench-style disk icon for 100Mb Iomega Zip disks. It's tiny, of course. It's on the companion disks.

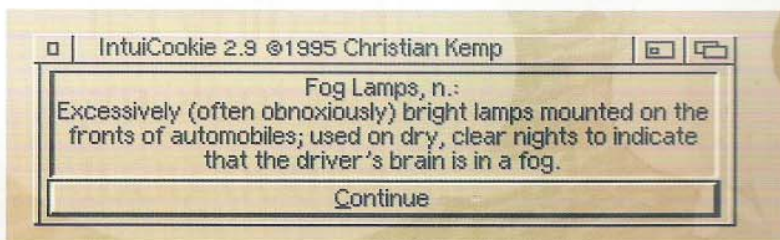
* Hexagons

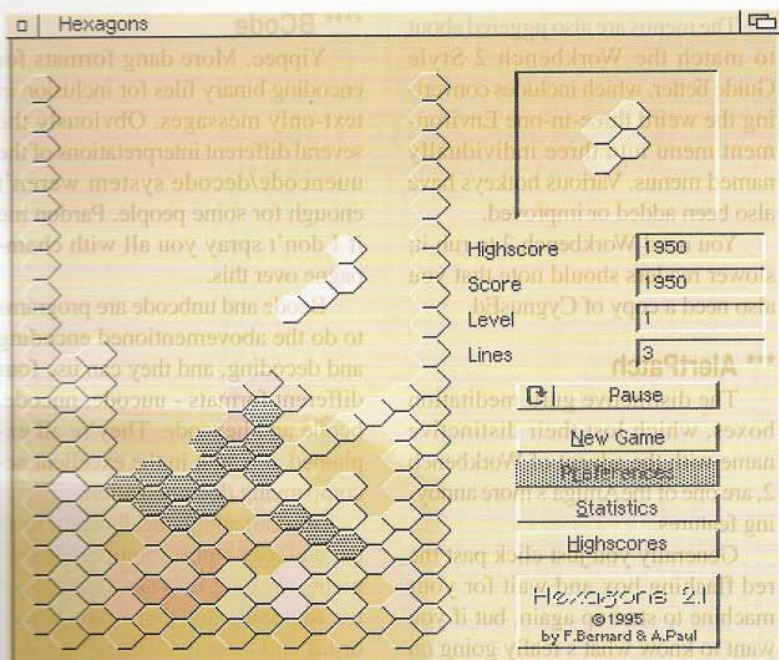
You know how to play Tetris. If you don't, please turn your computer in in the interests of public safety.

Now imagine a Tetris variant built around hexagons, instead of squares. The pieces still fall in from the top and the idea is still to fill in lines - but the lines are wiggly, and pieces are weird shapes and fit in weird ways and have six possible rotation positions instead of four.

It's a braintwisting experience, and it was first done on the Amiga by AHextris in 1992. Hexagons is not related to AHextris, but it's just as playable and works on the Work-

IntuiCookie - a bottomless pit filled with fascinating info.





Hexagons. Strangely mesmerising.

bench, so it's on the companion disks.

* Knockout

In 99 per cent of cases, ugly games written in AMOS are complete rubbish. Knockout is an ugly game written in AMOS that belongs to the other one percent.

Eight little cars (keyboard, joystick, four player adaptor human players and as many computer players as you like) are on a grey disc, which seems to be pretty darn slippery if their squishy handling is anything to go by. All around the disc is a bottomless drop. And the disc is steadily getting smaller.

When all of the cars but one has been bashed into the drop, a bridge

folds down and the survivor can escape - or fall off himself.

There's an alternate game that only allows four human players, in which you try to bash a big yellow ball into the goal of your colour. But the death-or-glory demo derby's where it's at.

Graphics, two out of ten. Sound, one (the death sound is that corny "hyeeah" yell that's about as old as the Amiga). Gameplay, 8.5. On the companion disks.

*** LJ4Boost

Here's a printer driver for the Hewlett-Packard LaserJet 4L, but it should also work with any other printer from the 4 family. It's fast, small

(less than 4000 bytes!), works with ANSI symbol sets, HP-GL/2 graphics, can switch auto/manual paper feed, can activate the 4L's Econo-Mode, and is very well documented to boot.

The shareware version (\$US20 to register) doesn't support delta-row compression for faster printing, but everything else works. If you've got an HP 4-series laser, check it out.

*** LowUp

Another tiddly program, which can change all upper case letters in a filename to lower case, or vice versa. Good in batches to turn a directory full of ugly UPPRCASE.FIL MS-DOS filenames into more legible lower case.

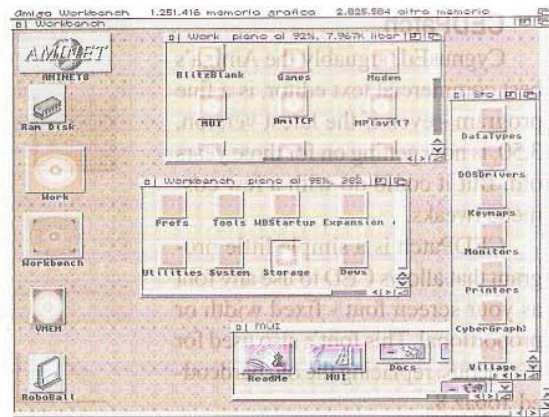
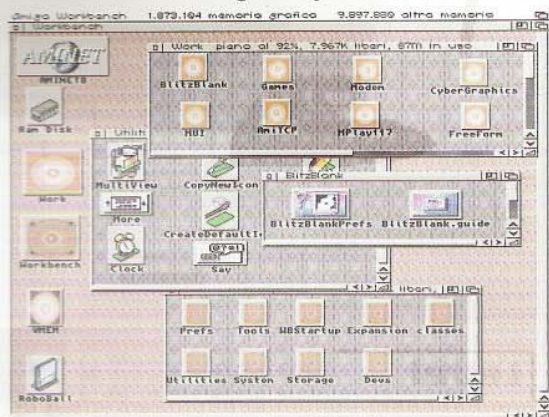
*** BerzBench

I could easily make this column into The Latest Pretty Icons and Backdrops if I chose; there's always tons of them coming out.

To avoid abuse from those who believe doing things is more important than the prettiness of the device you're using, I only mention icon-and-backdrop packages every now and then.

BerzBench is unusual - the backdrop patterns have an art-deco/ancient Roman look about them, and the associated icons match the theme. You'll need to be running the NewIcons system (on the old HotPD22 companion disk set) to use the icons, and they're only for disks and drawers as yet, but if you like the look of the example pics, check BerzBench out.

BerzBench showing off - yet another neat collection of drawer and disk icons.



**** T.O.P.

There is a certain breed of Amiga user that has a lot in common with people who drive cars whose manufacturer is listed on the registration sticker as "Me". If you just don't feel normal unless your computer isn't, the Tower Of Power project is for you.

This is not just putting a console Amiga - in this case an A500 - into a tower case. Anyone can do that. This is shovelling everything around to fit an A500 and an expansion box like an A530, and have all the drives, connectors and other bits in logical places.

It hinges to some extent on getting a PC clone case that fits well - which could require some trial and error - but the text and diagrams included should get any raving looney - um, I mean dedicated Amiga customiser - up and running. On the companion disks.

**** FloppyFix

New (Amiga Technologies) A1200s have a different model floppy drive to the old ones, with the Ready signal line no longer connected. For normal operation this makes no nevermind, but smart-aleck non-DOS games and demos can fail to realise a disk's been changed.

If you're handy with a soldering iron, there's an easy hack to bridge the Select0 and Ready lines with a diode and bring the failing software back - and an explanatory text file and picture are on the companion disks. Voids warranty, all care, no responsibility, do not attempt when inebriated, notify next of kin, don't whinge to me if something goes wrong. Disclaimer concludes.

*** CEDPatch

CygnusEd, arguably the Amiga's best commercial text editor, is a fine program - even if the latest version, 3.50, is now getting on for three years old. But it could do with a few cosmetic tweaks.

CEDPatch is a simple little program that allows CED to use any font as your screen font - fixed width or proportional. This font's also used for the menus, replacing the old hardcoded Topaz 8.

The menus are also jiggered about to match the Workbench 2 Style Guide better, which includes converting the weird three-in-one Environment menu into three individually named menus. Various hotkeys have also been added or improved.

You need Workbench 2 to run it; slower readers should note that you also need a copy of CygnusEd.

*** AlertPatch

The distinctive guru meditation boxes, which lost their distinctive name with the advent of Workbench 2, are one of the Amiga's more annoying features.

Generally you just click past the red flashing box and wait for your machine to start up again, but if you want to know what's really going on you need a reference book or one of those nifty guru-decoders - for which you have to scribble down the number.

Enter AlertPatch. This changes error boxes so they're much bigger, and contain a load of information on what caused the crash.

This doesn't mean there's anything you can do about it, but the extra information should be valuable to more advanced users.

**** BCode

Yippee. More dang formats for encoding binary files for inclusion in text-only messages. Obviously the several different interpretations of the uuencode/decode system weren't enough for some people. Pardon me if I don't spray you all with champagne over this.

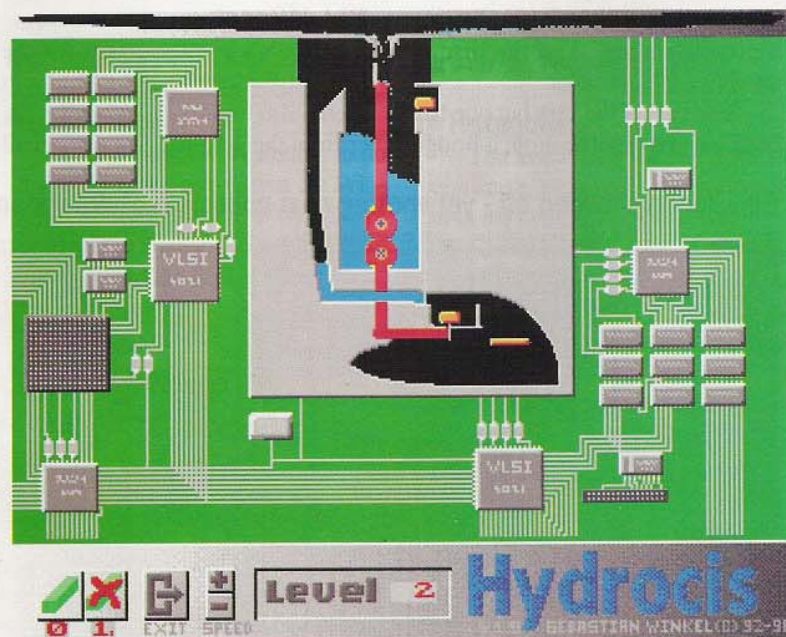
Bcode and unbcod are programs to do the abovementioned encoding and decoding, and they can use four different formats - uucode, nucode, bcode and hexcode. They're all explained at length in the excellent accompanying documentation.

You can automatically split, reorder and reassemble multiple file segments for long files (so you can put the segments together in the wrong order and they'll still decode), and there's CRC-32 and size error checking as well.

Bcode can decode ordinary uuencoded data just fine, but the funky extra features only work if the original data was bcoded. And bcoded data's no use if you don't have unbcod.

So get these programs (on the companion disks, of course), if your computing life includes dealing with uuencoded data. And go right ahead and send bcoded data to other people

Hydrocis - Ugly but challenging.





**** AmySTP

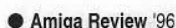
As a test of AmySTP's claims, I grabbed myself a file (a 24 bit IFF) and uuencoded it raw. Result: 40% bigger. Then I archived it with LhA (19% smaller) and uuencoded the archive, giving a final .uu file only 13% bigger than the original picture. Using AmySTP, the encoded file was only 16% bigger than the original; LhA and uuencode beat it, but I skipped that extra encoding step, and the file recipient could skip the extra decoding step, and the difference was negligible, so AmySTP could prove handy.

**** AddPicassoMem

If you've got a Picasso board but don't actually want to use it for its speedy 24 bit graphics at that exact moment, you'll note that there's a

*** Charma

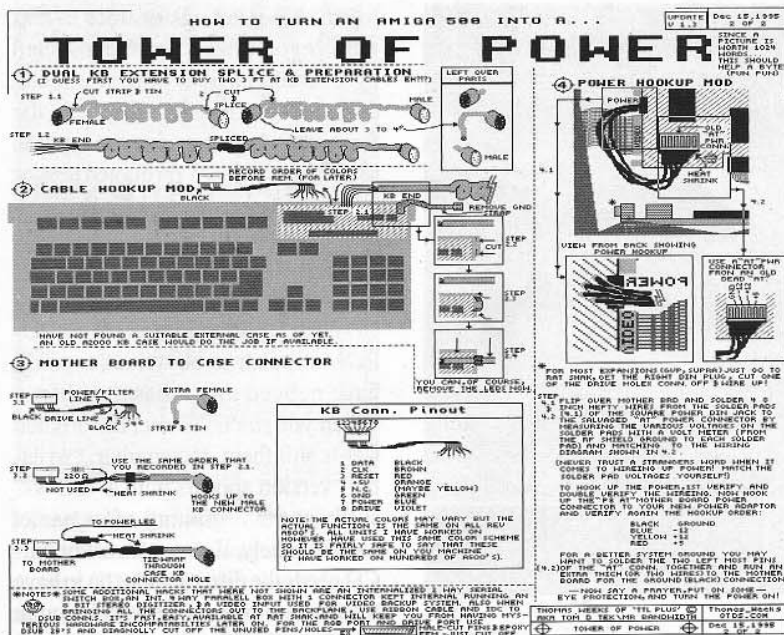
Do this...



*** CDWrite-Relabel

For reading, disc-specific software should just use the "real" CD with its original name, but absolutely named writes won't work.

Which is where CDWrite-Relabel comes in. It wedges the system so that the writable disc carries the original name. Simple as that. It's small, so it's on the companion disks.



...and now do this!

** CdxSizer

For people who just can't leave well enough alone, here's another make-your-Workbench-a-bit-more-friendly utility. CdxSizer slightly thickens the borders of sizeable windows, so you can size or move them by clicking any border, anywhere.

CdxSizer is highly configurable and superbly documented, and appears well written and unlikely to argue with other system patches - often a problem, especially on heavily customised machines. The author's thought of this, and made it possible to manually lock out the new resizing method for any windows that don't want to be fooled with. It doesn't require any fancy add-ons - just Workbench 2.

* Hydrocic

I tried to play the last version of this intriguing puzzle game I found - but since the aim is somewhat non-obvious and that version was in German, I gave up pretty quickly.

The aim is simple enough once you see it in English. You have to submerge a target thingy in water. The water pours in through a Lemmings-style trapdoor in the roof, and you can use only vertical blockers to guide it around and through valves, pumps, pipes and water bombs and get it

where it's meant to be.

Having played through the first three levels, I can confidently say that unless you're the kind of person who likes to get stuck into a tricky puzzle that you have to get just right - an addicted Lemmings player, in other words - this is probably not the game for you. But if you can stand a bit of frustration and the fact that there's always just barely enough water to do the job, not to mention the lousy graphics and nonexistent sound, this is a fun game. Worth a go; see if you think it's worth the \$US20 registra-

tion fee.

*** PNG Datatype

PNG (Portable Network Graphics) is the graphic format that's been invented to replace GIF, which you have to pay license fees to include in your software.

It's like GIF in that it's a zero loss, quite small format, but you can use PNG for 24 bit images (actually up to 48 bit), instead of GIF's lousy 8 bit. The only thing wrong with it is its lousy name.

And here is a datatype that lets users of Workbench 3 and up load PNGs as if they were IFFs.

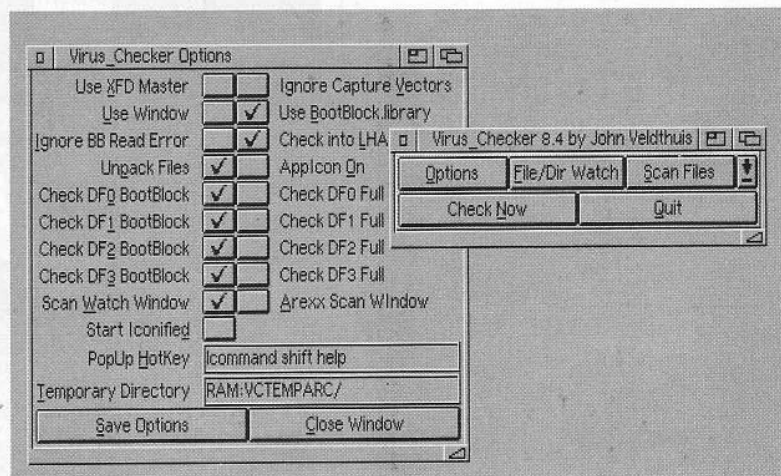
As with all such datatypes, you can't save PNG, only load - but it's useful nonetheless. PNG images are very rare at the moment, but it's a well-designed format that deserves success. You can never have too many standards, after all.

Give us your money!

All of the software mentioned in this column is available on the extra-special super-big companion disk set number 30. Four disks of concentrated Amiga delight can be yours for a mere \$17 including postage.

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VirusChecker's nifty MUI interface.



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Internet NEWS



By Daniel Rutter

Nifty Net Sites

The biggest problem with getting information from the Internet is finding it. You know someone's written the definitive paper on the mating habits of the African land snail, and you know it's on the Web - but you don't know where.

This, of course, is where search engines come in. Lycos, Alta Vista, Infoseek, Magellan, Yahoo, Excite... the list goes on. Check each one in turn and you're practically certain to find what you're after. But checking each in turn is, to put it bluntly, a pain.

And THIS is where multiple search sites come in. Feed them your query and they spit it out automatically to a variety of search programs, combine the results and show them to you.

No muss, no fuss, no typing the same thing into fifteen engines and/or trying to remember the punctuation to use with FooBarSearch.

MetaCrawler is arguably the best of these combo-engines. It searches all the popular services, combines their results, cancels out redundancies and presents you with the final output. You can do simple phrase, must contain and must not contain operations, too.

The only thing I don't love about MetaCrawler is that it is, unavoidably, slow. A simple search commonly takes a minute or so to give you a re-

sult. This is fine if you've got other pages to read and you're not in a hurry, but can start to wear if you've got a list of not-too-weird topics to research.

If you want a result right now this minute, the single search service to use is Alta Vista. I've never seen Alta Vista clogged, and it'll return a usually very pertinent list of hits in a second or two.

This is partly because of clever coding and partly because Alta Vista exists to show off Digital Equipment Corp's most humungous hardware - the main index machine is a behemoth with 10 Alpha processors, six gigabytes of RAM and 210 gigabytes of disk storage.



CNN

TV is passe. Newspapers? Wrap your fish with 'em. If you want the news, hit the Web.

CNN, the Cable News Network has a site which is predictably US-oriented, but their World News page is now an oft-visited fixture on my hot-list.

The website's updated quickly (though not phenomenally so) and so you can reasonably expect it to be as up to date on the major world stories as any daily paper.

There are colour pictures, long stories and focus areas on particular subjects. Two minutes of the news you're interested in beats 20 minutes of ad-punctuated TV news any day.

Agamemnon

I mentioned Robot Wars in the last magazine.

Since then, I have engaged in an email conversation with a guy who's making a middleweight contender for this radio-controlled gladiator contest.

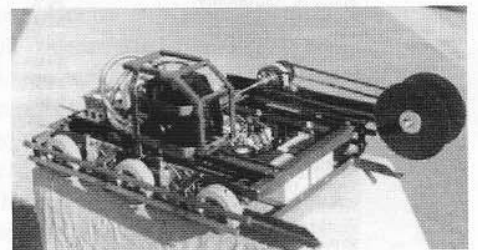
I pointed out that the rocket armament contravened Robot Wars Rule 1, which bans pyrotechnics. The constructor of the robot said thanks, he'd already been told that, but sent me a free T-shirt anyway.

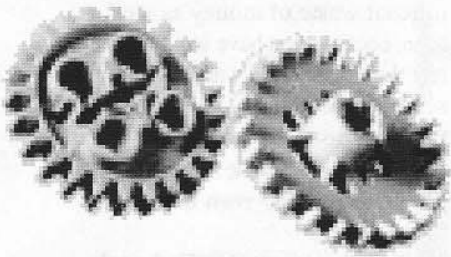
Dan Danknick would be a pretty cool guy, even if he didn't have the same first name as me and send me clothing.

His robot, the Agamemnon, is large and nasty. His website is well laid out, with quite a lot of info and groovy pictures of the six-wheeled skid-steer monster at various stages of construction.

And he has earned my appreciation by using frames quite well on the pages, yet not making frame compatibility compulsory.

This means users of Microsoft Internet Explorer can view the Ag pages without having to switch to Netscape.





Yet more Lego

The plethora of Lego-related information on the Web (do your own search - you'll see!) strongly suggests that the little ABS building blocks are a breeding ground for techno-dweebs.

What caught my attention about the official Lego site was the press release that announced it. It said that the new site "combats unauthorised LEGO sites which ... have the potential to misinform Internet users about LEGO products and events." Once you dig through the legalese, this essentially means they don't want people putting Lego logos all over their pages, but the impression you get from their deadly serious tone is that inaccurate Lego information will cause the dissolution of society and rioting in the streets.

The site has an excellent history of the Danish building block company and basic information on the different lines, but there are much better Lego information sources and piles of pictures of models on the (now universally de-logoed) unofficial sites. I'm not sure of the Lego Group's opinion of the page I found with pictures of Lego figures engaged in acts

of violence and procreation - more evidence of the corrupting influence of the Net, kids - but every other Lego site I found was wholesome - even if obviously maintained by a Seriously Sad Puppy - and interesting for entirely non-prurient reasons.

Science Hobbyist

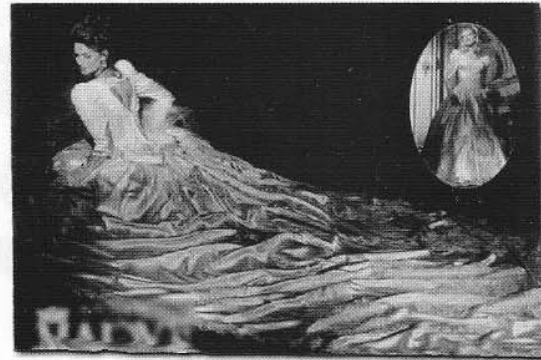
I have a natural affection for anyone who describes their experiments with microwave ovens, giant capacitor banks, Tesla coils and similar High Risk Physics equipment as "fantastically dangerous". It combines a responsible statement of extreme danger with a pleasant hint of the wild-eyed, maniacally cackling mad scientist that lurks within us all. Well, within me, anyway.

Bill Beaty actually seems to know what he's talking about, and understands the principles at work behind, say, making a block of agar gel go off like a bomb or putting a fluorescent tube in a microwave. His various pages are replete with "don't try this at home" disclaimers, which anyone planning to live past that afternoon should heed. But boy, it's cool stuff to read about.

And the Bride Wore...

Love is blind, or so they say. Here's a site that demonstrates that love frequently also has very bad dress sense.

Some of the wedding dresses on display here don't look that weird to me - at least, not compared with the



traditional chiffon-explosion that a wedding frock's supposed to be. But those unfortunate lasses saddled with bows the size of New Zealand, corsages nailed to their heads, trains longer than the Ghan or bodices crocheted by their grandmas deserve what they get.

The site's Hallmark Cards presentation style is perfect. Check it out.

Crayon's Cool "Cool Site Of The Day" Site Of The Day

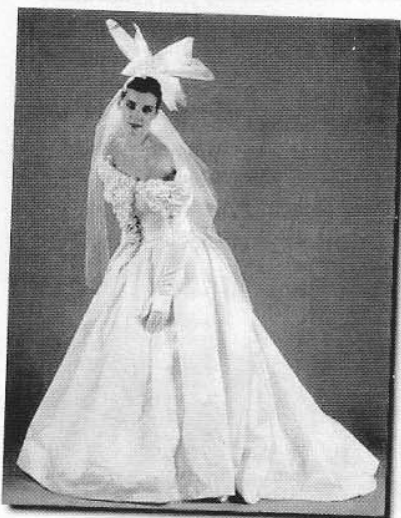
What's cooler than a cool site of the day? A site that lists the coolest cool site of the day site of the day.

I'll give you a moment to work your way through that syntax.

HotWired's cool sites listing listed the Crayon site, and proudly announced that they had thus made it the cool "Cool 'Cool Site of the Day' of the Day". Time for a little lie down, I think.

Joelogan's Cry For Help

Any male - or female, for that matter - who has given serious thought to stuffing their head into a



heavy-duty garden mulching appliance after being told that the Object Of Their Desire likes them as a friend, isn't ready for a relationship just now or just met this really great guy/girl, will be interested in Joelogon's Fool-proof Guide to Making Any Woman Your Platonic Friend.

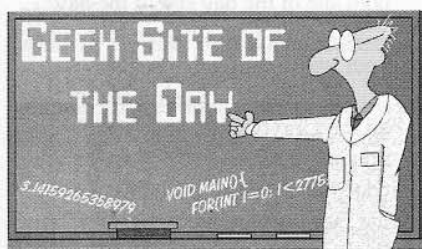
Warning - attempting to laugh and weep at the same time can cause facial spasms.

Nerdity Test

Face it. You're a nerd. A geek. A dweeb. Perhaps even a propellorhead.

The critical question, though, is how much of a nerd are you?

The Nerdity Test will tell you. Click the boxes in this gigantic list of probing questions for an automatic evaluation of your technical aptitude, social ineptness and familiarity with obscure technical details of Paramount Studios science fiction. I scored 33.4%, Andrew Farrell was around the 44% mark. Test your mettle.

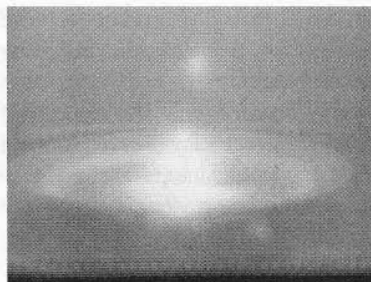


Geek Site Of The Day

If the last item appealed to you, so will this one. The Geek Site of the Day is just what its title suggests. It is not very serious. See what you think.

The Exploding Mac

This site cropped up on the Geek Site Of The Day (see above) a while ago. Some geeks play wargames, or chess, or build Star Trek models. And some pack clapped out Macintosh computers with gunpowder and blow 'em sky-high. Check it out.



Fun With Grapes

I am not advocating you do what is demonstrated at this website. I take no responsibility for any injuries or damages. Including injuries inflicted by parents or Significant Others when they see what you're up to in the kitchen.

That said, it would appear that one can, should one feel so inclined, take a grape and cut it in half widthwise so a bit of skin still connects the two halves.

One can then, speaking purely theoretically of course, put this grape on a plate and put the plate in a microwave oven. And then, should one for some reason give the thing a few seconds on high, one may witness pyrotechnics. Apparently.

For more information, to be used for entertainment purposes only of course, on this subject and also on the related topic of Grape Racing, check out this site.

The GIGO Game

Internet advertising is a hot topic, and for good reason. Some people complain about the strip ads proliferating on many commercial Web pages, that lead you to more ad info when clicked, but they're not the hot topic. The hot topic is "spamming" - indiscriminate unsolicited email advertising.

Unsolicited email ads - frequently of a quality that'd be laughable on pre-dawn morning TV - are fairly annoying, and in quantity can be a significant

waste of money as well as time, because you have to pay to collect them. But there's no law against sending the things, yet, so anyone wanting to strike back against what they see as abuse of the Net has to take the law into their own hands (cue theme music).

The GIGO Game (for Garbage In, Garbage Out) is explained on a Web page that's really about making Web advertising work properly. Boring diatribes don't get read, though, so there are lots of terrible yet amusing stories from people whose lives have been made miserable by unscrupulous advertisers, not to mention hints and tips on spoiling said advertisers' days. Falsifying email so advertisers think other advertiser want to be sent their junk mail; setting up your own auto-responder system to bounce messages to the junk mailers' auto-responder and create ever-repeating echoes; you get the picture. Ah, infotainment.

Money for nothing

More dodgy advertising, of a more traditional nature. You know the deal. "You may already have won!" "Guaranteed income!" "Work from home!" "No risk!" "Commission!" "Dynamic tension!" "Sea monkeys!" "Horse elbows!"

A guy called Patrick Combs, who's a variant on those win-friends-and-influence people motivational guys but lectures high school students, was mailed an ad for a get-rich-quick scheme. The ad included a fake cheque for \$95,035.35, representing the amount of money you could make in a week or some such baloney. On the way home one day, Patrick deposited the cheque, for a laugh.

It cashed.

And there began a remarkable saga of corporate incompetence, legal loopholes, enlightenment about the way banks do business and general



public uproar. Read all about it at Combs' site, which also contains a lot of disarmingly candid information about the life of a motivational speaker and writer.



Bad Science

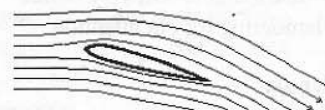
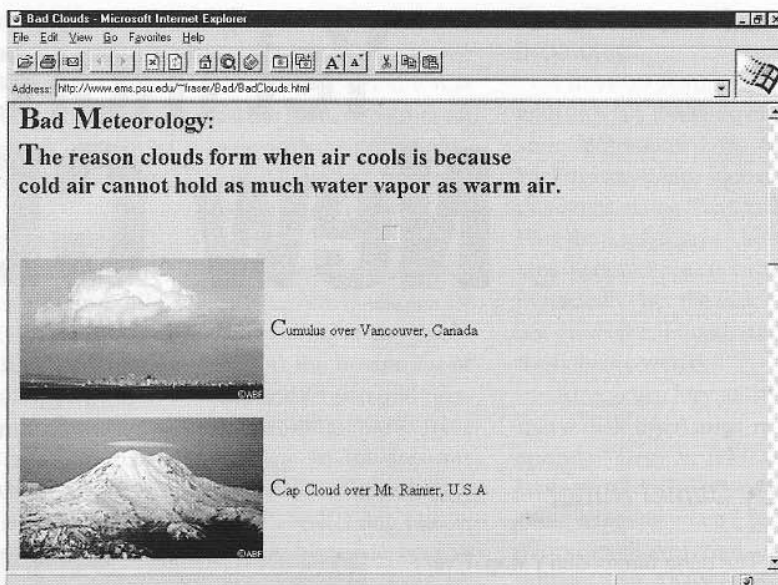
Raindrops do not have points, on either end. Light rays from the sun are not parallel. Rain clouds are not made of water vapour. Friction is unrelated to roughness.

The Bernoulli effect is the least important factor in making a wing fly. Global warming is debatable - the greenhouse effect, though seldom correctly described, is indubitably real.

And water, in almost all circumstances, can drain clockwise or anticlockwise out of any given receptacle, regardless of the hemisphere it's in.

If any of the above statements had you saying "Well that's not what they taught ME in school", it's time for you to check out Bad Science, a jumping-off point for various resources on common science misconceptions, particularly those propagated by incompetently written textbooks and ignorant educators.

An excellent place to visit if you're eager to improve your comprehension of the physical world - or just annoy your workmates with your newfound scientific prowess.



This Months Hot Sites

Advance Bank Internet Banking- <http://www.advance.com.au/advance/ibank/ibnktran.htm>

Agamemnon - <http://www.hht.com/prsnIPgs/ddanknick/>

Alta Vista - <http://www.altavista.digital.com/>

And The Bride Wore... http://www.visi.com/~dheaton/the_bride_wore.html

Bad Science - <http://www.ems.psu.edu/~fraser/BadScience.html>

Bill Beaty (Science Hobbyist) - <http://www.eskimo.com/~billb/index.html>

CNN World News Main Page - <http://cnn.com/WORLD/index.html>

Crayon's "Cool Site Of The Day" Site Of The Day - <http://crayon.net/about/cool.html>

Exploding Mac - <http://pgd.scvnet.com/mac/>

Fun With Grapes - <http://www.sci.tamucc.edu/~pmichaud/grape/>

Geek Site Of The Day - <http://www.owl.net.rice.edu/~indigo/gstod/>

Joelogan's Cry For Help - <http://www.phantom.com/~joelogan/home.html>

Lego - www.lego.com

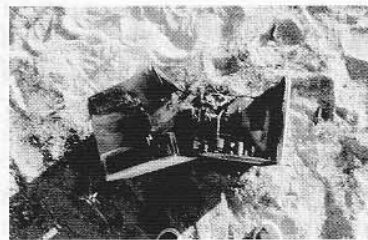
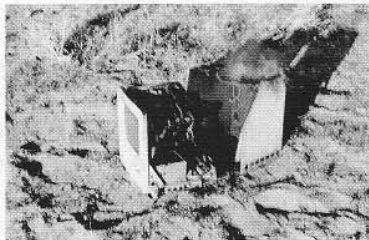
MetaCrawler - <http://metacrawler.cs.washington.edu:8080/index.html>

Nerdity Test - <http://gonzo.tamu.edu/nerd.html>

OmniView - <http://www.omniview.com/omniview.htm>

Patrick Combs - <http://www.dnai.com/g-think>

The GIGO Game - <http://www.mindspring.com/~mdpas/gigo.html>



Yet more New CDs

By Daniel Rutter

► The dang things don't stop. Every time we turn around there's another freely distributable software collection clamouring for our attention.

Net News

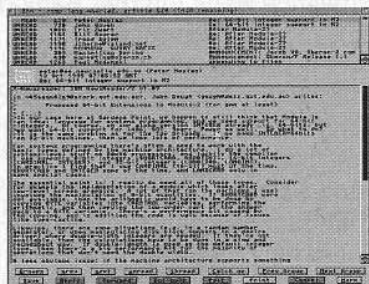
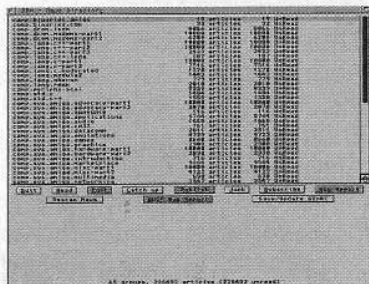
Hey, here's an idea. Let's take all of the traffic on all of the Amiga related Usenet newsgroups for about a year and stick it all on a CD-ROM. Let's call it something catchy like Net News. It'll sell a million. We'll be rich.

Well, if we put a decent interface on it we'll be rich. If we make the user access the messages via a regular newsreader, he'll discover that regular newsreaders aren't too happy about accessing 226,000 message databases, and take a LONG time to initialise, and don't offer decent - or any - search features.

We also might alienate the market a bit if more than 10% of the messages are in German, and some others are of little use (European "for sale" messages a year old), and there's no filtering of the usual personal abuse and mindless flaming that goes on in newsgroups.

But hey, the customers won't mind. Will they?

Net News is interesting, if you don't mind turning over 11Mb of hard disk to its index file and still waiting quite a while as it loads (CDs are normally very fast on directory listings, but putting 10,000 files in a directory can make them behave oddly...). As an information resource it's clumsy, but as a rather enormous



browsing device it could be diverting.

ProPics

This is a picture disc. Lots of copyright-free images, designed for use as backdrops for your presentations.

The image quality on ProPics is, well, OK. Most of the images look as if they were grabbed from video and not retouched; they're a bit blurred and a bit washed out. If you're going to use them as backdrops for your own video presentation then that's OK, but they won't cut the mustard if combined with crisp rendered graphics and compared with truly professional backdrop graphics they lose badly.

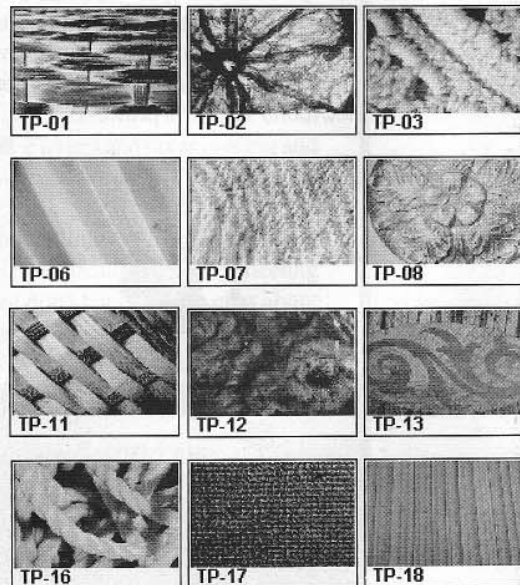
There's also not an awful lot of images - 120 in total. Few enough that usable large thumbnails can be printed on the single-sheet "booklet" in the

CD case. Mind you, you get those 120 images in BMP, TIFF, JFIF (JPG), IFF and Video Toaster Framestore format - but more images and fewer formats wouldn't have hurt.

The images are categorised, and there's one to suit whatever corporate graph you want to put over the top. But make sure the quality's good enough for your application before you buy this CD.

Tools Unlimited 2: The Blanker Collection

My mind boggled mightily when first I saw this disc. A whole CD-ROM full of nothing but screen blankers? Say it ain't so! How many screen blankers do you need, anyway?!



ProPics - Textures & Patterns - © 1994 Legend

Fortunately, this disc's title is misleading. While it does contain every Amiga screen blanker that every there was (including, it proudly claims, blankers for Workbench 1.2!), there's also a load of MOD music files (hey, some screen blankers can play them!), animations (some blankers can show them), icons (um...) fonts (um...) and more.

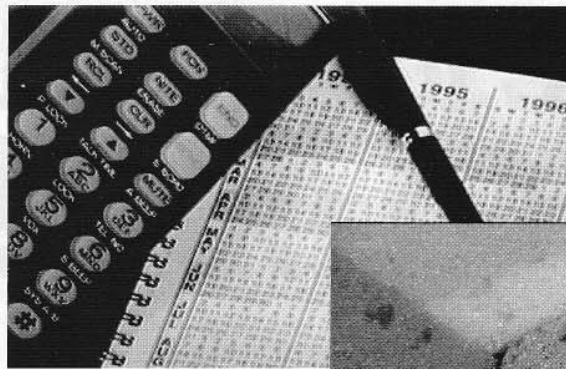
There are 30Mb of animations, and they're the usual collection of good Amiga ANIM format flicks that you get on every second PD CD-ROM. They're worth having, but not if you've already got them in nine other places.

Likewise, there's nothing too wrong with the MODs - but if you keep up with the Aminet CDs at all you'll have more MODs than you know what to do with.

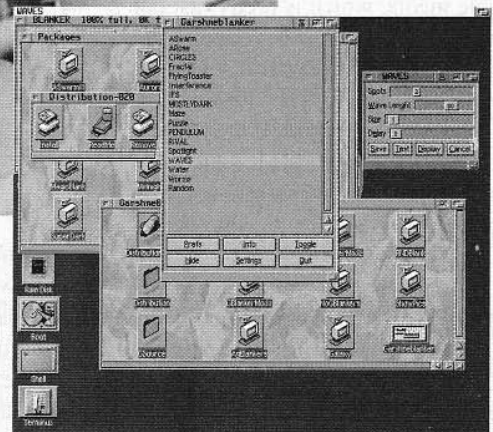
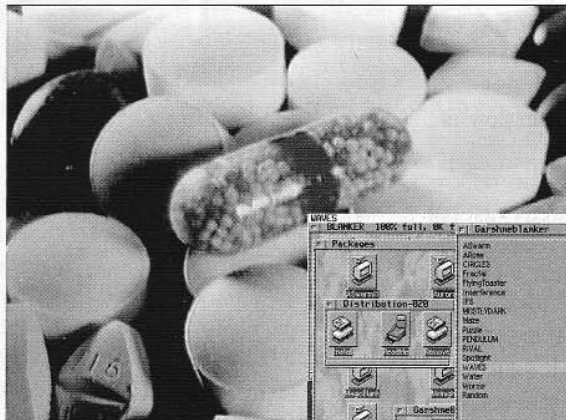
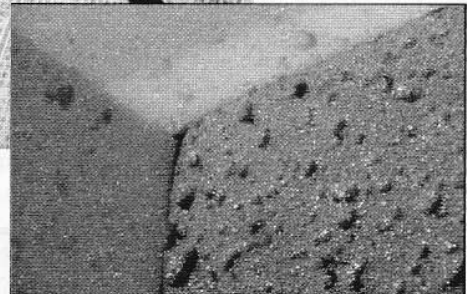
The icons are OK and include the complete Newicons package, and the fonts are all right as long as you're not expecting anything fancier than plain old bitmap, with a few in colour.

If you're expecting 650Mb of pure unadulterated screen blanker action, I'm happy to say this CD does not deliver. But it's an OK "limited smorgasbord" sort of disc with a strong screen blanker flavour. If your PD CD collection's small, this one could be worthwhile.

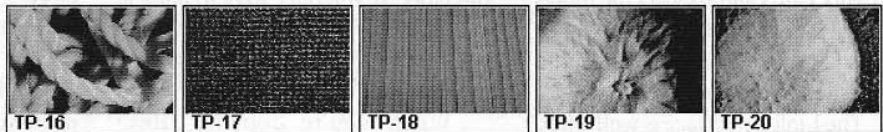
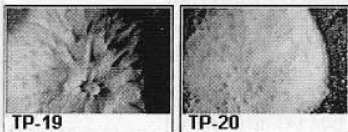
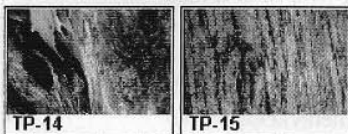
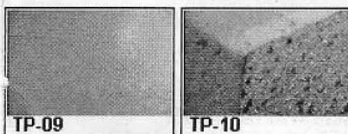
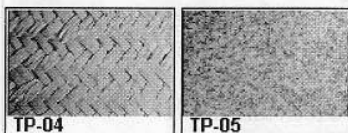
All CD-ROMs provided by Schatztruhe, Germany. Local distribution TBA.



ProPics - pics, but not very "pro".



Thankfully, it's not all blankers.



Design Technologies Inc.

ProPics - Textures & Patterns - © 1994 Legendary Design Technologies Inc.

PC to Amiga to PC LinkIt!

By Daniel Rutter

When you're moving files between Amigas and PCs - or Amigas and Amigas, for that matter - you can use floppies, which is cheap, but slow and awkward.

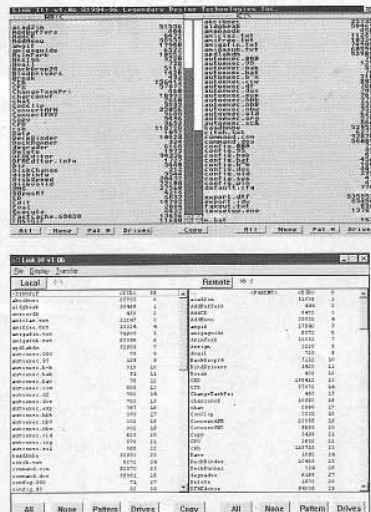
You can use high capacity removable media, which is pretty fast but expensive and still not very elegant. You can use network cards, which for Amigas is expensive and for Amiga to PC use is very complex. Or you can use a program like Link It, which uses a simple parallel or serial cable to move your data fairly slowly, but easily.

The golden oldie in this field is Twin Express, a simple but perfectly useable command line based program that has an Amiga and a PC version. Hook the two computers' serial ports up to each other, run the programs at either end and use simple DOS-ish commands on either machine to navigate directories on the local or remote computer and copy files to and fro.

Link It is, in many ways, Twin Express with knobs on. Like Twin Express, you can use it to connect Amiga to PC, Amiga to Amiga or PC to PC.

Unlike Twin Express, Link It costs \$89, which makes the PC to PC connection option a bit ridiculous as for \$20 more you can buy a couple of network cards and connect the things properly. But Link It makes up for its non-shareware price tag with extra speed and friendliness.

The Link It interface is well ahead of Twin Express' unfriendly com-



mand line. It's a basic directory utility jobbie, with two directory listing windows that can display any directory on any drive of the local or remote machine.

On the PC side, the Link It interface runs in Windows 3.1 or Windows 95, and works the same as the Amiga version. The two are locked together, so changing the current directory on one machine will change the appropriate listing on the other too.

Better!

The big advantage of the directory utility interface over Twin Express's command line is that you can easily select multiple directories full of files and set them copying, without having to come back to the program every few minutes to select the next directory. If you only want to copy a couple of files it doesn't make much difference, but bulk transfers are much easier.

When you're copying files, there's a simple progress indicator

that shows you how far you've got though the current file - not the whole batch. Before you start copying you can get info on the amount of data selected and the expected transfer time, but you don't get to see it while the data's being moved.

You can filter visible files or select groups of files by using wildcard patterns - but Link It doesn't support the logical not operator, so you can't auto-select, for example, every file that doesn't end in .info to easily avoid sending a pile of useless icon files to the PC.

Like Twin Express, Link It's ability to access remote drives is not integrated into the PC or Amiga OS. The remote machine's accessible devices are only visible inside Link It's interface, and other programs can't directly access them. ARexx scripting, however, can get around this to some extent.

Link It has an excellent ARexx command set, which lets you use all of its features from any REXX-compatible program and even do things like running programs on the remote machine. Power users will have a lot more fun tinkering with Link It than with Twin Express.

Link It has file type identification and conversion, but it's inelegant. Files are not identified via OS3.x datatypes, but via old-style directory utility extension and header recognition.

And there are no built-in viewers or converters - you just set up external programs to, say, turn WAVs into

8SVXs when they're copied from PC to Amiga or display pictures when you double-click them.

This is better than nothing, but you need to be a quite competent user to set up any filetypes of your own.

Problems

Link It could, however, be better written. The Amiga version uses a non-standard installer (not a good sign) and only runs on its own NTSC size screen. Fortunately, there don't seem to be any major operational problems, but I managed to kill the program effectively by aborting a file transfer. I was copying a large test directory from one machine to another, and discovered that hitting the abort button the PC end only aborted the copying of the current file, not all the rest in the list.

So I hit abort at the Amiga end. The PC program hung, so I shut it down and reran it - but the Amiga side was now spouting an endless series of timeout warning errors and had to be rebooted.

Cabling

Link It comes with a serial cable, but it can also use a parallel connection for greater speed.

The parallel cable used is a special design and no instructions are given for its construction - but if you send in the registration card to the American manufacturers, they'll send you a parallel cable for free.

I was only able to test Link It's speed with a serial connection, and it performed as expected for the BpS rate selected. At 57600 BpS, it moved a bit less than 7k per second. The parallel link has the potential to be a great deal faster, but without the cable I couldn't test it.

Overall

This works. It's a better made alternative to Twin Express, and the price is OK, if not fabulous. If you use Twin Express already and don't find yourself annoyed by it, you might as well stick with it. But if Twin Express frightens you, Link It won't.

Contact Natdisc on (02) 544 1874. RRP is \$89.

FREE READER CLASSIFIEDS

1084S Colour Monitor \$80.00, Phone
02 680 1714.

A1200, 40M HD, 2Mb RAM, 1084
monitor, mouse & joystick, software -
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A2000 Deringer 030 25 MHz + FPU
250 Mb HD + A2091 Commodore HD
controller, 1 MB chip + 2Mb fast + 4
Mb 32 bit RAM, 1084s stereo monitor,
2Mb EGS 24 bit + Packard Bell SVGA
monitor - makes dual monitor system
includes all manuals and system disks,
heaps of Amiga books and mags, 1000
+ disks and heaps of extras, the lot for
\$2,500 ono. Phone Joe (063) 722 398.

A2000, GVP 030 Accel, 9 Mb ram, 50
Mb HD. WB 2.0 1/1.3, Multisync
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Sharp JX100 scanner, Manuals, DTP
software, video, books. \$1750 ono.
Phone: (06) 282 0166. (Please run until
notified.)

A4000/040, 6 megs ram, 120 HD,
Rev-11 Buster, C= 1940 multisync
monitor (built-in stereo speakers).
Includes all manuals, mouse, joystick,
plus packaged productivity software and
games, and hundreds of floppy disks
loaded with PD. Mint condition, all in
original box and manuals, \$500.00
(Some software available for Mac,
including all you need for the internet).
Pioneer DR-U124x internal 4.4x SCSI
CD drive, 6 months old, as new, in
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seven CDs numbers 3 through to 9,
\$100.00 the lot. Quantum 365 Meg
SCSI II HD 6 months old, \$220.00
A4091 SCSI II controller card, room for
HD, 3.6 meg/sec \$250.00 Quantum 170
Meg SCSI HD, perfect order \$120.00
GVP HC8 + SCSI controller card, room
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2 megs ram, \$160.00 Syquest SCSI
internal 44 meg removable cartridge
drive \$95.00, three carts, \$30.00 each,
sold as one lot only.

Works perfectly. Midi tower case, brand
new in box, \$70.00 Perfect sound 3
software plus stereo digitizing hard-
ware. \$100.00 3 x 4 meg 72 pin Simms,
\$185.00 each. Phone 02 9906 2466 w or
0412 266880 anytime (Email -
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A500, 4 meg fast, 1 meg chip Gvp HD
40 mb, 1084s Monitor Wb 2.1. Urgent

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A570 CD Rom for A500- \$80, as new
Delta-Ray Joystick \$20 Phone Ian on 07
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Manuals, Disks, Mags, and AmosPro.
\$700 Phone 049 874 261

Amiga 2000, 1084s Colour Monitor,
2x3.5 internal floppy drives, Workbench
2, 40 Mb HD, 4 Mb Ram expand to 9
Mb. Lots of software D Paint 3 & 4, Art
Dept Pro, Final Writer, Wordsworth etc
but no games. \$600.00 ono Call Jack on
07 3281 3206 (after hours)

Amiga 2000, with installed Megachip
for 2Mb chip RAM, 12091 SCSI with
120Mb hard disk, WB 2.1 incl ECS
Denise plus all manual, mouse,
keyboard etc, Communicator CD32
interface, assorted software including
Cinemorph, Amiga Vision, Cross DOS
and others, (no monitor). Bargain at
\$600. But wait! Theres more! When
you buy the Amiga 2000 package, you
get an Apple Newton Message Pad
(retailed for over \$1,000 12 months ago)
absolutely FREE!! All items in xcellent
condition. Phone Richard on (03) 9587
1236 AH or 018 417 770.

Amiga 2000. Wb 1.3/ 3.1, 1084s
Monitor, GVP Combo 33mhz 68030,
68882 with 4 meg 32 bit Ram, 1 meg
chip, 52 Meg HD, over 150 disks
including Imagine, VistaPro, Amosaic
2.0, 20 + coverdisks, 50 + PD utils /
games / demos, joystick, Epson LX-86
Printer, \$1600 Neg. Phone Jamie after
6pm on 07 335 666 42.

Amiga 300, 3.1 Rom, Rev 11 Buster,
3.5" Quantum 425Mb SCSI Hard Disk
\$1500

Amiga 32 bit RAM SIMMS, Suitable
for GVP accelerator cards. 1Mb SIMM
\$50 and 4Mb SIMM \$180, buy both for
\$200 Phone Richard on (03) 9587 1236
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Monitor, Mouse, 2 Joysticks, Star
NB24-10 printwr with sheet feeder,
External 3.5 and 5.25 inch Floppy disk
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software plus 50+ other disks. \$500
Phone John B/H 03 9482 2322 & A/H
03 9857 4489 Doncaster.

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C64 Games and software, all originals on disk. Might and Magic \$10, Bards Tale Trilogy pack (1,2,&3) \$10, Six Sizzlers pack (inc last Ninja) \$2, Solid gold pack (inc gauntlet) \$2, World leader board golf \$1, C64 Propak disk - 50c, Fortran programming language \$15, Arcade Classic cartridge 50c, Plus many other games on disk at 30c each. The lot for \$30. Turrican game. From beyond the edge of darkness, evil is back. Morgul, master of all the fears of mankind. As the world trembles, a single warrior emerges, you are Turrican. Good action platform game \$5 incl box and instruction, IBM shareware games-syndicate, Art Studio, Math rescue. \$2 each or all for \$5, including boxes & instructions.

CD32 + Joypad; Games include Pinball Fantasies, Banshee, Ultimate Body Blows, Whales Voyage, Diggers, Oscar and zool plus numerous Demo CD's and Magazines. \$300 ono for the lot. Phone Bob during buisness hours on (06) 252 6887.

CD32 Games: Hero Quest 2, Simon the Sorcerer, Banshee, Utimate Body Blows, Death mask gamers delight \$25.00 each UFO Enemy Unknown & Jetstrike \$30 each Alien Breed 3D \$45.00. Phone: 07 3376 8458 ask for Ian (The Lot \$200)

Commodore 1084 Monitor (original one) \$120ono or swap for a parnet cable for a Amiga to a CD32 with Aminet CD's or similar. Phone after 5pm on 0319 548 2893 ask for Merv.

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We apologise to sellers and buyers for any inconvenience caused. It was not possible to contact all sellers to confirm the goods described were still available at the time of publication.

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VIScorp prepare to **BUY** *Amiga Technologies!*

By Andrew Farrell

► 'Gong, next round!' Just to recap folks, in case you missed anything, it goes like this. Company makes Amiga, Amiga is bought by Commodore, Commodore goes down the gurgler, Amiga bought by ESCOM, ESCOM creates Amiga Technologies, and now, yes it's true, Amiga Technologies looks like it's about to be sold to VIScorp.

The announcement follows a letter of understanding between ESCOM and VIScorp in April. Since then, it's been all quiet as we await the outcome, which is subject to approval of terms and agreement from the respective boards of directors.

VIScorp is a developer of interactive TV (ITV) set-top boxes. They signed an agreement to license the Amiga chip set back in December last year. Set-top boxes are an unproven technology built around the belief that people want to browse the Internet on their television, among other uses.

"This intended acquisition is part of VIScorp's strategy to build market leadership in the fast-growing field of ITV", said William Buck, Chief Executive Officer. "As a result, we would own Amiga intellectual properties, including several that are currently used in our set top-box, Electronic Device (ED). We would also have control over the supplied chip sets used in ED as well as Amiga inventories and access to the company's current sales and distribution channels."

Commenting the proposed acqui-



Petro Tyschtschenko

sition, Helmut Jost, chief executive of ESCOM AG, said: "VIScorp has a clear vision of the Amiga technology potential for ITV applications. We are eager to support and work together over the term of the letter of understanding to ensure a smooth transition between the two companies. VIScorp anticipates the support of ongoing European sales of popular models such as the A4000T and the A1200 as well as the current developments and future releases of Amiga Technologies."

Petro Tyschtschenko, president of Amiga Technologies stated "I am looking forward to being able to take advantage of the research and development support potential that an Amiga-related company like VIScorp can provide."

Commenting that the primary ob-

jective of the proposed acquisition is to give VIScorp full access to the Amiga technology to support development of its ITV device, Mr. Buck noted: "Our intention is to rapidly develop and begin manufacturing TV set-top interactive boxes — products that give home users capabilities such as telephone reception and dial up capabilities, facsimile, video games, pay-per-view options, electronic mail, and access to on-line services, including the Internet."

Since the announcement, VIScorp has received literally hundreds of telephone, fax and email communications requesting information as to the status of the deal and our plans for the Amiga.

They posted information on the Internet to confirm:-

1. VIScorp is currently conducting a thorough due diligence assessment of Escom's Amiga holdings. This process is painstaking and extremely time consuming; however, without full disclosure, no satisfactory deal can be concluded.

Due to the letter of understanding, VIScorp is restricted from releasing information relating to the negotiations until they are completed. Until such time, Amiga remains the asset of Amiga Technologies/Escom and all inquires relating to current Amiga operations should be directed to Amiga Technologies/Escom.

2. VIScorp currently holds a license to the Amiga OS and chip sets and is developing a family of TV-based products that utilize the Ami-



ga's unique functionalities.

3. Many of VISCORP's senior management have previously worked for Commodore and have a thorough knowledge of the Amiga.

They also stated their intent to purchase the Amiga comes out of (i) an appreciation of the core technology and its importance to VISCORP's long-term business development and (ii) a belief that the Amiga can - like the Phoenix - rise from the ashes and become a profitable technology for the future.

The announcement from VISCORP follows in the wake of some serious tap dancing over at ESCOM. In late March Helmut Jost replaced Manfred Schmitt as the company's CEO, hot on the tail of poor financial results attributed to tough competition and inventory write offs (Now where have we heard that story before?).

Amiga Technology man, Petro Tyschtschenko, spoke at a press conference at the World of Amiga in London during April. There he said "Amiga Technologies is about to be sold by ESCOM to VISCORP. The process, engaged by the signature of a binding letter of understanding between ESCOM, VISCORP and Amiga has been announced on Thursday this week.

"...A lot of questions arise. Why is this happening? Who is VISCORP? What does this mean for Amiga? In 1995, when ESCOM took over the intellectual property of the former Commodore, ESCOM was in a financially good shape. The year 1994 had been excellent and the corporate policy was set to expansion. A multimedia company was formed. The decisions taken at this time were good and ESCOM saved the Amiga computer from its bad destiny.

"Amiga Technologies was founded and Amiga computers were brought back to a demanding market. Strategic decisions were taken to ensure the venue of new technology based models as soon as possible. We



VISCORP

VISUAL INFORMATION SERVICE CORP

have achieved all this and we are proud of that performance.

"Of course, all these projects and plans are to be financed. it was clear from the beginning that it would take some time for a break-even point to be reached. The company created in May 1995 only could begin with sales in mid-September. We have then sold 40 thousand A1200s, 13,000 monitors and 2,000 of the A4000 tower machines worldwide until now, which is a satisfying result.

"As you might be aware of, ESCOM is currently facing a quite difficult financial situation. A bad christmas season and inventory write offs were the main reasons for this. This situation of course is also directly affecting Amiga Technologies. The fact is that ESCOM currently does not have the financial resources needed to support the still ongoing costs of our operation, especially advertising

Can a company making set top boxes also market the Amiga?

and research & development.

"To continue a successful Amiga business, a solution to this situation has to be found. I checked a lot of possibilities, I looked into a lot of alternatives. Ladies and Gentlemen, I personally think that VISCORP is one of the best solutions. It is a very interesting opportunity for our future.

"Last year, in December, a license agreement was signed between Amiga Technologies and VISCORP, for the making of the Amiga set-top box. This product is network oriented and needs a system like the Amiga with its video abilities and tight operating system. The relationship between Amiga Technologies and VISCORP built up from this time on became closer and closer.

"VISCORP is a research & development oriented company. These research efforts are based on the Amiga technology for use in set top boxes. Former Commodore engineers work for VISCORP, which will of course be an appreciable synergy for the development of Amiga in general.

"The set-top box market is huge and will be a fantastic engine for our activities. As I told our staff yesterday, this procedure is not affecting our daily business and ongoing projects, as well as my position as the president of the company. We want the migration to be made as smooth and transparent as possible, for our company and also for our business partners and the Amiga community.

"I am confident that this is a good chance for us to be successful in the future. When this deal will be finalised, the Amiga technology will return to an American company, which understands our technology and its manufacturing.

So, once again, now we wait.

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What's New?

ESCOM Down

ESCOM AG, the erstwhile parent company of Amiga Technologies, did not post a good financial result for the last year. The company lost 125 million marks in 1995 (roughly the same number of Australian dollars), against an expected loss of 45 million. Total sales were DM2.35 billion.

A major reason for the loss was ESCOM's expansion into new markets and their takeover of the Amiga, both of which enterprises involved lots of capital outlay.

But these factors were taken into account in calculating the DM45 million figure, and the extra DM80 million was blamed on weaker prices and declining sales, resulting in large stocks of unsold and depreciating inventory.

Manfred Schmitt, the founder of the company, resigned as CEO of ESCOM on the 31st of March. He has been replaced by Helmut Jost, ex-MD of Commodore in Germany and Commodore's Vice President International. Jost joined ESCOM in 1993, then left in November 1995 to head IBM's German PC business. It proved to be a sojourn of only four months.

Schmitt will carry on as a consultant to the

company.

Aminet 10 out

The tenth in the series of single Aminet compilation CD-ROMs is out, containing software dated up to January 3rd.

The focus area for this disc is fonts, with 330Mb of them after decompression.

There's 520Mb after decompression of software newer than Aminet 9. The CD also contains the full PageStream 2.2 desktop publishing program and an manual and upgrade offer, and a slightly crippled version of the latest version of TypeSmith, 2.5, with a similar offer.

Cloanto announces Kara Collection CD-ROM

Cloanto will shortly release a complete collection of Kara's ColorFonts, AnimFonts, the Starfields animation package and the Plaquegrounds texture package, plus a full set of support tools from Kara and Cloanto, on one CD-ROM.

Most of the material on the CD is old, but good -

Kara's coloured and animated fonts have seen service on a plethora of Amiga-engineered video productions, and they're supplied on the CD in the right formats for video titling packages.

A more recent addition is Cloanto's ColorType software for changing ColorFonts manually or via ARexx.

An ARexx script package automates AnimFont rendering, so you don't have to laboriously place letters by hand in your paint package. You also get Cloanto Personal Fonts Maker and a collection of Postscript fonts.

AGA display enhancer

The DblScan 4000 is a display enhancer card for the video slot of Amiga 4000 computers, which is not strictly a flicker fixer but which does much the same job.

It upgrades those Amiga video modes that aren't displayable on most monitors, because their scan rate is around 15kHz, to twice the scan rate.

It does this by inserting blank lines after every drawn line, resulting in that distinctive 15kHz "venetian blind" look familiar to 1084 owners.

It does a similar trick with interlaced screens, resulting in faithful 31kHz reproduction of that flicker we know and loathe.

The DblScan 4000 doesn't make the doubled video universally compatible with all monitors, since many don't even do 31kHz any more, but it greatly expands the possible choice of monitors and makes a cheap VGA monitor useable with all A4000 video modes.

No local distributor has yet been announced.

Contact the manufacturer, Petsoff Limited Partnership, at P.O. Box 1009

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LAPPEENRANTA
FINLAND

Jyrki.Petsalo@lut.fi

MVB Announces RAM Price Drops

As RAM prices continue to tumble, MVB Computer Supplies announced large reductions in RAM prices just prior to Amiga Review going to press. 4Mb 72 pin Simms are now \$85, 8Mb Simms are \$149 and 16Mb Simms are down to \$319.

At the same time, Amiga 1200 accelerators were reduced in price. The DKB Cobra 28 with 4Mb is down to \$349, and the faster DKB Cobra 40 with 8Mb is now only \$473.

For more information call MVB Computer Supplies on (03) 9725 6255.

Microsoft buys Blue Ribbon Soundworks

The mighty Microsoft machine rolls on. Blue Ribbon Soundworks, producers of top music software titles Bars & Pipes and SuperJAM!, has signed a deal with Microsoft to "bring interactive music to the masses of the world".

Naturally Blue Ribbon staff are very excited at this opportunity, and are terribly sorry to announce that Microsoft has no interest in pursuing the Amiga market any more.

They will no longer be supporting their Amiga software titles, but hope that both Amiga and Windows users will support each other through on-line services. As a goodwill gesture, Blue Ribbon and Microsoft have made available most of their Amiga software, including Bars & Pipes Pro 2.5 and SuperJAM! 1.1 for FREE to CompuServe users only - the software may not be distributed by any other means. GO BLUERIBBON on CompuServe for further information.

The Amiga Surfer

Amiga Technologies will release the new "Amiga Surfer" A1200 bundle in February.

The package includes an Amiga 1200 with 2Mb RAM, a 260Mb hard drive and a 14400Bps modem with a complete set of Internet access software including Web browser, FTP (File Transfer Protocol) program for uploading and downloading files on the Internet, an IRC (Internet Relay Chat) client for talking (text based) to other people on-line in real time anywhere in the world, and Email with graphic, sound and animation support.

This pack also comes with the "Amiga Magic" bundle of software including a word processor, spreadsheet, database, organiser and graphics software. It is not known at this stage if a similar offer will be made to Australians, or indeed, if this pack will be available here at all.

There is news that Amiga Technologies plans to release the software alone. This may be a chance for Australian distribution to happen.

For further information visit Amiga Technologies on <http://www.amiga.de>

Accelerate your A600!

Good news for A600 owners. ACT Electronics in Europe have released a new accelerator card for the Amiga 600 which is claimed to make the

computer up to ten times faster!

The card mounts internally on top of the 68000 CPU and contains a 68020 CPU and 68882 maths coprocessor, both running at 25MHz. It has one autoconfiguring RAM slot that can accept 1, 2, 4, or 8Mb 72 pin SIMMS). Contact your local dealer for price and availability.

Macro68 upgrade

Macro68, the 680X0 assembly package from The Puzzle Factory, has been updated to version V3.175. It now supports the 68060 CPU and has some minor bug fixes.

Macro68 supports the entire Motorola 68k family including MC68882/030/040 FPU and MC68851/030/040 MMU.

The new Motorola syntax for '030 and later CPUs is supported, and a utility is supplied to convert the old syntax to the new.

Other features include support for the Copper, and a resident shared library which allows the use of preassembled resident include files allowing for very fast assemblies.

An ARexx interface provides "real time" communication with the editor of your choice and a number of directives allow Macro68 to communicate with AmigaDOS.

External programs may be

invoked on either pass and the results interpreted. Macro68 is compatible with directives used by other popular assemblers.

Contact your local dealer for price and availability.

Amiga Internet Service Provider

The Australian Internet Company has launched a new service especially for Amiga users.

The company offers a very reasonable flat rate of \$40 per month per PC, or \$30 per month for personal access per PC.

Starter kits are available for all the major platforms. Access includes five megabytes of space for your own personal home page, with related graphics and files.

The Australian Internet Company also offers complete design services and access to training.

For more information call (02) 231 2211. Support is available Australia wide on 1-900 155 280.

Or check out the Web site at www.aic.net.au.

(Watch for a full review of this service in the first issue of Multimedia & Desktop Video)

FAX or EMAIL news items to (02) 879 4752 or pcreview@world.net.

The next Amiga **WALKER** *the prototype*

By Andrew Farrell

► Current model Amigas deliver technology that dates back to the early nineties. Commodore engineers of the day were no doubt frustrated to learn the new AAA architecture would not be delivered as conceived. Instead, AGA was rolled out under direction of the marketing gurus and accountants at Commodore who said they knew best. All this at a critical time in the Amiga's life and as it turned out, it hurt. So, like it or not, the current machines had room for improvement from the word go, and that's before you start talking PowerPC, or better graphics.

Enter Amiga Technology. In March this year at the CeBit show, Amiga Technology showcased a prototype Amiga that fixes a number of significant shortcomings in the current model, as well as providing a starting point to take the Amiga into the future. The working name for this

new machine is Walker. A competition to name the final version is in progress.

First Impressions

One look at the photographs of the Walker probably had you in a spin - are they for real? Is this the look of the future machines? Well, Amiga Technology seem serious about the idea, but keep in mind, this is only a prototype. One thing is for sure, the mismatching colour of the CD-ROM and floppy drive must go!

An interesting aside is that the main circuit board mount points are said to be spaced to match the same standard used by most PC motherboards. This means the new Amiga could well be mounted in a standard PC box - however that could present some problems for the expansion slot.

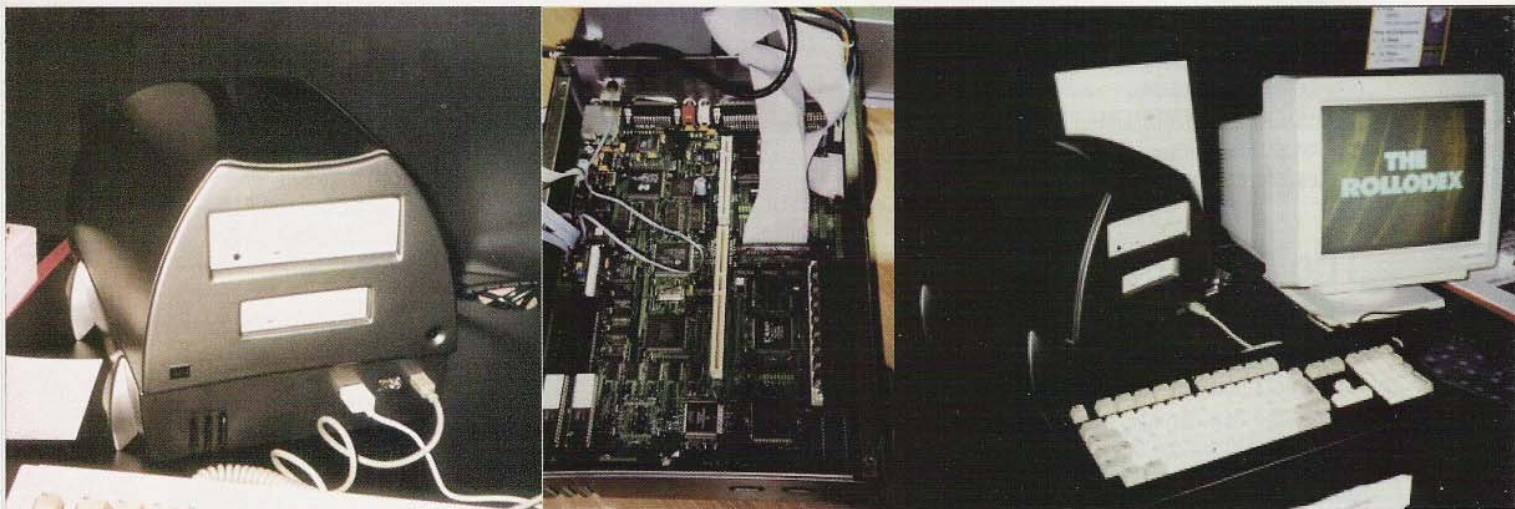
Some have commented that this somewhat bizarre shape has a certain

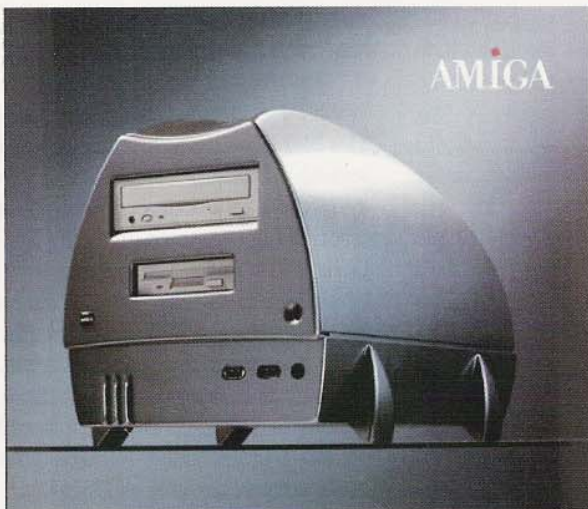
appeal. As far as vacuum cleaners go, it's probably a bit on the fat side. But hey, at least the next thieves that break in to your study might mistakenly leave it behind.

Price for this new fanged box of goodies is anyone's guess. However, unofficially it could land in stores for under US\$1,000. Since some of the key components are likely to be subject to considerable price drops over coming months, that figure is not just a pipe dream.

According to one source, a standard Windows 95 keyboard with Amiga stickers over the Windows keys was attached to the prototype. From a parts point of view, this is a good thing.

Closer inspection of the Walker reveals there is a point to the odd looking design. The base contains the motherboard and various connectors, whilst the top houses CD-ROM and





AMIGA®

other drives. By pulling off the top, you can add a section to the middle to allow for other expansion. Depending on what you want to add, the height of this middle section will vary right up to a full tower. This idea has been used successfully by manufacturers such as Dell, although in a somewhat less adventurous form. It does work.

Under the... hood?

The Walker is a completely new German design in terms of motherboards and that box. The current prototype PCB is six layers but it is expected to be reduced to four layers and the footprint should also be noticeably smaller. However, the same old AGA chips will be used. The CPU will be a 68EC030 running at 40MHz. A socket for an optional FPU is included for frustrated 3D renderers and spreadsheet freaks.

For the rest of us, you will be

pleased to know a clock is now standard issue - how was it that Commodore ever saw fit to leave that off the Amiga 1200? Some marketing genius probably figured you didn't need a clock to play games and so had it chopped out.

Expect at least 2Mb of Chip RAM (RAM prices have fallen a lot lately) plus 4Mb of Fast RAM. (For those new to the Amiga scene, Chip RAM is used by the Amiga's custom chips to store graphics and because it is shared with the CPU for storing other information, is slower than regular memory, which is therefore called Fast RAM. This design is still in front of the IBM PC compatible world that continues to use dedicated video RAM which cannot be used for anything else.)

If you want more RAM, two SIMM sockets will allow expansion up to a total of 96Mb, depending on

the type of SIMM package you use. These are standard SIMMs - like the ones used in PC clones (read cheap).

In the storage department you'll find an IDE quad speed CD-ROM drive. These are on the way out in PC land, so will definitely be cheap to include by the time the Walker ships. The size of the hard drive is yet to be determined, however given that your average PC hard drive these days is at least 1.2Gb, it's likely to be pretty big!

Operating System

Glancing sideways at Windows 95, one can't help feeling Workbench is starting to look like it's time for a major upgrade. Nevertheless, there's still plenty about Commodore's old faithful that leaves the average PC choking on our dust. So, it makes sense that OS improvements were not high on Amiga Tech's list of priorities. The version to be included with



the Walker will have some improvements and bug fixes. The extras will be behind the scenes for the most part, enabling the new hardware and expansion options. However, there's talk of some cosmetic improvements too. This may be little more than one of the popular shareware face lifts integrated into the system.

The plan is to move version 43.1 of Kickstart 3.2 onto a set of 1MB chips. Amiga Technology are not yet sure how these chips will be fitted, but they may appear as an upgrade for existing machines.

Apparently the Amiga 3000, 4000 and A1200 can take 1Mb ROMs. Apart from bug-fixes, Amiga Technology has removed the four gigabyte limit of the FFS. The CDFS has also been improved to work properly with Scala and of course the new E-IDE interface.

Expansion - up, up, up

The best new thing about the Walker is the expansion slot. It's all new - this is not an A1200 slot or something else. To use it, you'll plug in a daughter board offering Zorro slots, PCI slots, a PowerPC processor, '060 or who knows what else.

This single slot is located dead center in the motherboard. It is divided into two sections, so you could use to separate cards that compliment each other. Exact details in this area had not been released at the time of writing. It looks like one is the CPU slot and the other is a video slot.

Amiga Technologies have talked about marketing their own PowerPC upgrade with some help from a third

party company like Phase 5.

The total upgrade would include the new OS, and a PPC603 processor. In theory you could alternatively plug in a 680x0 processor accelerator card in one slot and a graphics card in the other.

The most exciting news was the idea of a board containing standard Zorro or PCI slots rising from the expansion slot. There are no PCI or Zorro slots as standard, however the connector looks like a PCI style slot.

Amiga Technologies are also thinking about adding a smaller I/O slot for less demanding expansion options. This would include networking, extra serial ports or a sound sampler - the sort of things you could knock up in a weekend in the garage. This is not definite yet.

The bigger, better I/O

One of those fixable things in the old Amiga is the slow old parallel port. Amigas have been using much the same I/O hardware since the original release. The Walker will deliver the Enhanced Parallel Port protocol originally developed by Intel, Xircom and Zenith Data Systems.

It offers a high performance parallel port that's still compatible with the old standard. This protocol capability was implemented by Intel in the 386SL chipset (82360 I/O chip).

It's a faster version that can deliver up to 2Mb per second thanks to a bidirectional, 24-bit protocol. As a bonus, you'll also land a faster serial port with a FIFO buffer (like most high end PCs have).

This same chip delivers the EIDE interface for the hard drive and CD-ROM, and a floppy interface for true high density PC compatible drives.

The floppy controller is capable of full speed (not half spin) HD floppy disk access, but this creates a dilemma - how to support existing hardware illegal DD floppy access.

Some sort of electronic switching is being considered, as well as a physical switch/cable relocation to move between the new controller and the standard Paula based interface.

A change in the HDAmiga floppy architecture is also planned.

How will they make it happen?

This is where the future of the Walker gets cloudy. Amiga Technologies had not been sold at the time of writing, although it looked like something was likely very soon. There was talk of a big campaign involving McDonald's restaurants in Germany.

A low priced powerful multimedia machine could be a big winner in the right corporate application - a box where people get to see the brand on the unit delivering information would be a smart move. Maybe that's what they had in mind with McDonald's.

A delivery date of sometime late '96 was mentioned. At the same time we can look forward to a PowerPC upgrade board for the CPU slot in the Amiga 4000 (and maybe even the A3000 - the slot is almost the same).

Beyond that, the next generation PowerPC Amiga will be the beast to watch out for. They'll sport standard graphics chips, and a number of other improvements.

At this stage delivery of all these models is dependant on many factors that have not yet been decided. However, if Amiga Technology can pull through the current reorganisation (see elsewhere) there's a good chance everything mentioned in this article will materialise.

Wrap Up

In my opinion the Walker is an interesting step forward, as much as I would have liked to see a whole lot more, a whole lot sooner. The design opens the way for future improvements, and that's very important right now.

The greatest challenge remains, and that is to rally the software industry in continued support of the Amiga. Regardless of what they manage in silicon, the software world is what will keep the Amiga going unless the plan is to abandon Workbench once the PowerPC machines arrive.

In that case, the Amiga would be "just another Power PC".

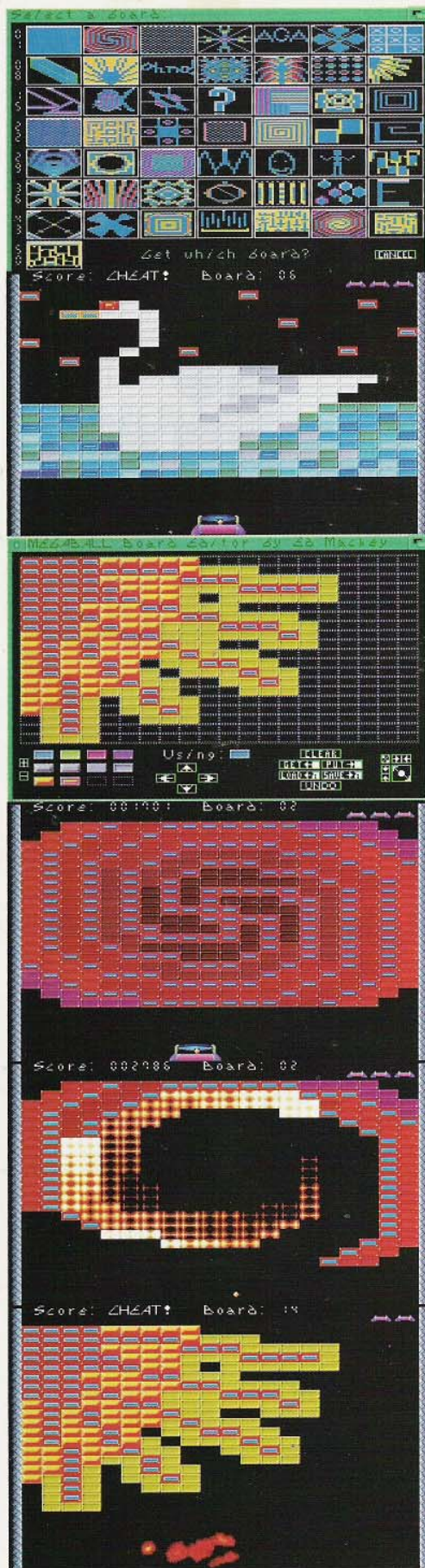
I doubt that is what Amiga Technology have in mind.



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■ I remember the my first experience with Breakout game. I was about nine, and it was running on an ancient UNIX server at my Dad's office.

It had bog standard ASCII graphics, and no sound, but it hooked me in. There's something about bat, ball and brick gameplay that makes it universal.

Nowadays, Breakout clones have come a long way. The latest release of Megaball is now commercial, adding more still to the list of game goodies. It's these goodies which set Megaball apart from its Breakout-clone friends.

The basic gameplay is still just a case of hit the ball and bash out the bricks without letting the ball drop off the bottom of the screen, but Megaball doesn't stop there.

There are a plethora of powerups that can drop down after you whack out a brick. Some make the ball slower. Some make you bigger (or smaller). Some let you shoot. Some even make you dead (gotta watch those!). There's heaps more though; in total 14 different good, bad (or terrible) things can happen. But wait folks - there's more!

In Megaball the bricks are just as interesting as the power ups (no, really!). Sure, there's the usual coloured bricks that don't do anything much, and there are the indestructible gold bricks, and there are even the multi-hit bricks.

I've yet to come across many breakout clones with exploding bricks though.

These were introduced into Megaball with version 3, and now the author has taken it one step further, adding different types of exploding bricks - some now make more bricks when they blow up.

Version 4 has spawned some other new bricks as well as the exploding breeders. Key-and-lock type bricks hit one brick to open up a section of the level), and even amoeba bricks, which slowly fill the level if you let them.

The gameplay itself is also excellent, both with ECS and AGA (which is simply prettier). The sound is as good as you're likely to be able to get away with in a Breakout, and the music's OK too.

This version has 20 tunes included, as well as details of how to make your own.

On the subject of rolling your own, the latest version is supplied with a level editor, so you can construct your own set(s) of levels in your spare time if you are so inclined. It's very reminiscent of the old classic Lode Runner.

The level editor was only previously available to registered users of the shareware version.

If you're about as creative as a stone, don't worry - there are enough levels supplied ready to go to keep you occupied for ages, including my favourite, "Boom!", which features many silly levels containing far too many exploding bricks.

All up, MegaBall 4 is another chapter in the great Breakout saga, and a good one at that.

If you were ever into any of the previous versions of Megaball, and never got around to registering, this is the easy solution. If you love Breakout clones, buy it - you'll like it.

If you don't, the answer is obvious.

- Mark Cocquio ■

WORMS

Artillery games are an old and cherished genre. The original Artillery simply put a couple of little monochrome tanks on a zig-zag line meant to represent mountainous terrain, and had them struggling to find the right combination of firing angle and power to hit the other guy. At the time - 1980 or so - this was pretty danged cool.

Over the years, Artillery games got more and more complex, with tons of different weapons and funky features. But the basic idea remained much the same.

And now, Worms.

You have a team of four Worms. They're little Lemming-sized suckers, sitting on a prettily drawn descendant of the old Artillery landscape, with variable gravity and surface friction. The worms have a collection of weapons. They all get a turn, one at a time, rotating teams, to crawl around and shoot. They can be killed by blasting away all of their health points, dropping them into water or blowing them off the side of the level.

Each Worm, during its turn, can move about as much as it likes - terrain and configurable move time permitting. They can crawl, jump, bungee from cliffs and use the Ninja Rope to grapple and swing about. An obstacle to free movement is the proximity mines left scattered all over the landscape by default - you can set the number of initial mines from 0 to 8, but worms can lay their own as well.

There are plenty of weapons, all of which can be set to a certain number of uses per level or unlimited ammo. The standard bazooka and homing missiles (harder to use than

you might suppose), grenades and cluster bombs (which are launched like traditional Artillery weapons, but with a golf-game style power bar to set the flinging strength, and have settable fuse time and bounce height), the shotgun (two separate blasts separated by as much crawling about as you like) and Uzi (replaceable with the more powerful Minigun from the occasional weapon crates), the Fire Punch and Dragonball (Street Fighter 2 homages, useful mainly for blasting your opponents off cliffs and the like), mines and the more powerful dynamite (drop 'em and get as far away as you can in five seconds; dynamite can be replaced by the truly horrific Sheep if you find one in a crate), the devastating Air Strike and handy Teleport, the blowtorch and pneumatic drill for digging in, the bungee and Ninja Rope, freely placeable and rotatable girders (for making bridges, Ninja Rope hook-up points or annoying enemy-blockers), and the spectacular Kamikaze.

The computer opponents are, as always in these games, peculiar. They make up for poor comprehension of the level with excellent aim and, on higher levels, 50 more health points than you get. At least they don't have infinite, randomly chosen weapons - and they don't know how to use the invaluable Ninja Rope and bungee.

Amiga rules!

I've played the Amiga and the PC versions of Worms, and can confidently say that although the PC version looks nicer, the Amiga version plays best. Team 17 agree with me, according to their website anyway.

The Amiga game has lots of little improvements over the PC version.



The Ninja Rope snags nicely on scenery, instead of swishing magically through it with your worm on the end being the only "collideable" object. You can deactivate Air Strikes for the first turn, to avoid Apocalypse Now carnage before anyone's had a chance to move.

The Amiga computer opponents are more manageable than the PC ones - they don't have the phenomenal grenade-between-your-eyes accuracy that means the only way to play against PC opponents is to dig in deep and early.

But the computer opponent should not be your major concern, because Worms is a game for humans to play against each other.

Get a friend - or up to three friends - to play Worms with you and you will become happy. It's an unavoidable process. Particularly since those silly little worms are hard to get angry about; anything that jams its head into the ground and pulls it out with a "pop" after falling too far is very difficult to take seriously.

Customisation

Worms has a four-billion-possible-levels random level generator, which gives you a few seconds to preview every level and accept it or regenerate it. You can also generate exactly the same level every time by typing in the same "seed". And you can load eight colour IFF images as levels, too!

Gripes

Unfortunately, this generally excellent game is let down by the usual Trivial Amiga Game Packaging Faults. The installer's a dodgy piece of work - it just copies the entire contents of all three game disks to the hard drive, giving you plenty of nice useless files like the startup-sequence and an icon for the floppy, as well as the hard disk, version of the game.

This stuff is just carelessness - but greater flaws are revealed when you try to run Worms on anything other than a plain vanilla Amiga. Welcome to crashland, 68040 users - and the hard disk version of the game bizarrely decides it's running on a CD32 on

many regular Amigas, meaning you can only enter the irritating code from the irritating black-on-black copy protection sheet with a CD32 controller. Not a joystick. A CD32 controller. If you don't have one, you can't run the game from hard disk.

You can't save the options at all - it crashes. If you could, you could convince the hard disk version it wasn't on a CD32. But you can't, so you can't.

This reeks.

But nonetheless, Worms is, without exceptions, a game every Amiga owner should have. If you don't like it, you're different and strange. Put up with the problems - they're not too annoying. The fun more than makes up for the pain.

Hints and tips!

One nice thing about Amiga Worms is that you can twiddle it around rather a lot - none of these interesting tips and cheats work on the PC version.

For Sheep Mode, in which you start with sheep, a banana bomb and the minigun and every shot weapon crate liberates another baa-baa, type "total wormage" (with space, without quotes) on the title screen. If you're using a CD32 joystick, press Green, Up, Pause, Pause, Yellow (just remember the acronym GUPPY). If you did it right, the screen changes colour and Sheep Mode is announced.

To Prod your opponents, move next to the recipient and press away, away, towards, towards - so if you're

facing right, press left left right right in quick succession. The Prod is the most humiliating way to kill a worm - it does no damage and doesn't push them far, but off a cliff is frequently far enough.

For super-nifty custom levels, name your level picture files filename.xxxx.wrm, with xxxx four numbers. The first number's gravity, from 1 to 5 - the regular Mars and Alien levels have gravity 2, and gravity 1 is highly amusing. The second number's surface friction; the regular Arctic and Alien levels have friction 2; friction 1 is ice-rink slick. The last two numbers are the sky and water colour, from 1 to 9. And if you give the level file a comment (do it from the Workbench Info window), that comment will pop up as a message when you start the level.

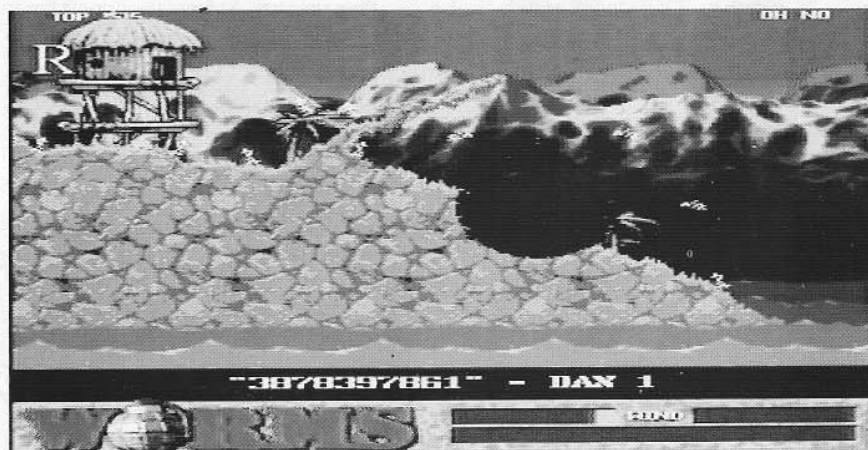
To set up four teams in two sides, select the four teams as normal, then click on two of them again; their star selection-thingy will turn into a circle, indicating they're on one side.

Click a worm in the Wormlist with the right mouse button to delete it.

There's a second set of control keys on the left of the keyboard - z is left, c is right, x is down, d is up, ctrl is jump, tab is toggle names, backtick/tilde is centre on worm. You can also use two mouses if you select two controllers in Options.

To customise the worms' speech, just replace the sound samples in the TWEnglish/TWFrench/TWGerman drawers with samples of the same name, but the same size or smaller.

- Daniel Rutter ■



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A better file system that's **SAFE** Ami-FileSafe

By Mark Cocquio

Many moons ago, the nice chaps at Commodore designed and released the Amiga. It was revolutionary, for all the reasons you probably already know - great graphics and sound and multitasking and all that. The filesystem was also a big step forward - no eight character filenames with useless three character extensions like MS-DOS.

While great for floppies, the old filesystem (OFS) had a few problems. It wasn't very fast, and didn't use available space very efficiently. In addition to this, OFS was fairly fragile when the machine was writing. So the nice chaps at Commodore came up with FFS, the fast file system.

This was a step up, improving speed and space efficiency considerably, but it still suffered from many of the problems of OFS.

Over the years Commodore have come up with various new incarnations of FFS, including the directory caching version for Workbench 3 and up, but they are all still intrinsically fragile, and not dreadfully fast.

A few years ago, a chap by the name of Michiel Pelt decided that he'd had enough, and that there had to be a better way. He came up with a new improved filesystem called the Professional Filesystem, which originally only worked with floppies. This filesystem has gone through various phases over the years, and has now become Ami-FileSafe, a commercial product instead of shareware.

The end result is a combined effort from Michiel Pelt and Fourth

Level Development, and is now a fully fledged filesystem, even supporting autobooting. It's billed as faster than FFS in every respect and MUCH faster for directory scans, and it has the considerable advantage that it cannot become invalidated if a write operation's interrupted.

Compatibility

As far as the user is concerned, there are a few noticeable differences between AFS and FFS besides its advertised advantages. For starters, AFS reserves 5% of the total disk space. Thus, you only get to access 88Mb of a 95Mb Zip disk - the other space is still there, but AFS reserves it and stops it showing up as free. Dem's da breaks; at any rate, it's always a good idea to have some space free on a hard drive. Now AFS takes care of the worry for you.

The other little difference with AFS also concerns free space - or rather the reporting of it. Many Amiga programs assume every program reserves one block as a header, but AFS uses the space more efficiently, and thus you get a free space figure lower than you should. The problem manifests itself mainly when copying and such, and really isn't worth worrying about as real free space is still very close to the quoted figure.

Apart from these little quirks, AFS is billed as being completely compatible with AmigaDOS, with all features being implemented, with the exception of record locks.

All the standard filesystem re-

strictions are the same; 96 characters per filename, 32 characters for the diskname and so on. There are no limits on the number of files you can store on a partition.

All AFS hard drive partitions can be made bootable, but floppies can't.

The Frustration

I've been keeping track of what is now Ami-FileSafe since it was first released, so I was overjoyed when the review copy arrived, for more than one reason.

Firstly, I was pretty much sick to death of FFS. Most people probably are, even if they don't realise it. If you've ever had to wait for a 9000+ file partition to validate you'll know what I mean.

Secondly, I had had no luck at all in getting previous hard drive versions of AFS to work. The floppy versions worked just fine, but turbo floppies are just a sideshow. Making your hard disk work better is the main event.

So finally I had the latest version of Ami-FileSafe Pro in my hot little hand! A quick read of the box was enough to get me hooked in - "Super fast!", "more secure" and a dozen other buzz words were what I had been hoping for. This time it was good, it would work, and nobody would get nailed to anything! I carefully selected a shiny new Zip cartridge to be my test subject.

So much for optimism. I had exactly the same problems as with previous versions; the filesystem could

be installed onto the rigid disk block, but then AmigaDOS (in its infinite wisdom) would decide that partition ZIP: was not a device with a filesystem. Can't format. Can't look at it. Not gonna happen.

This had gone far enough; after all, this was the real McCoy. So much email was exchanged with the nice folks at Fourth Level support, resulting in more ripped hair and dents in my computer's casing. The support guys were genuinely helpful, and replied speedily, but nothing seemed to work.

So it was decided to try Ami-FileSafe on some other machines. After all, it is supposed to be easy to install. So around went the Zip cartridge.

Unfortunately, our attempts resulted in more frustration and keyboard abuse when HDToolbox on another machine decided that there wasn't enough room on the RDB for the filesystem. The same RDB that my machine had no problems with.

It is a known problem that Zip carts don't have very much space in their RDBs, thanks to Commodore's standard of allocating only two tracks for the purpose, but HDToolbox has plenty of ideas of its own about just how much

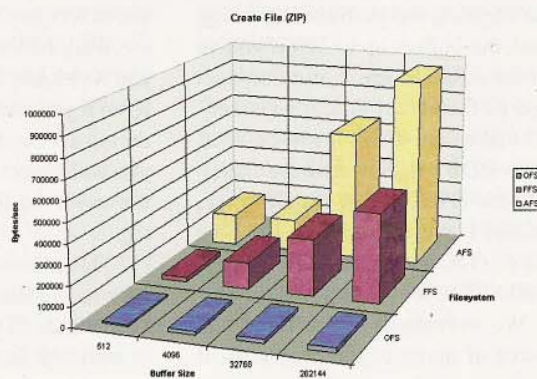
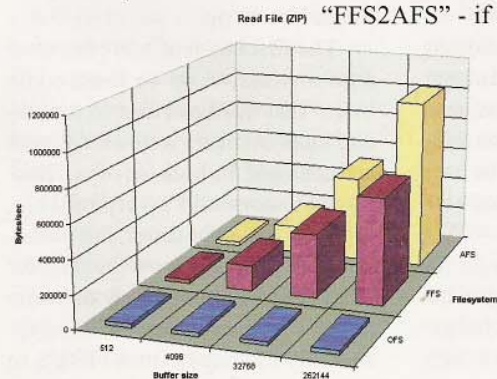
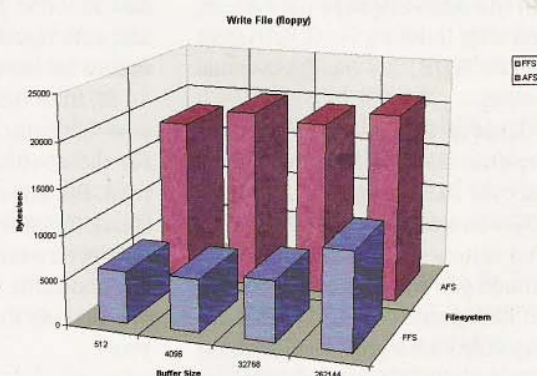
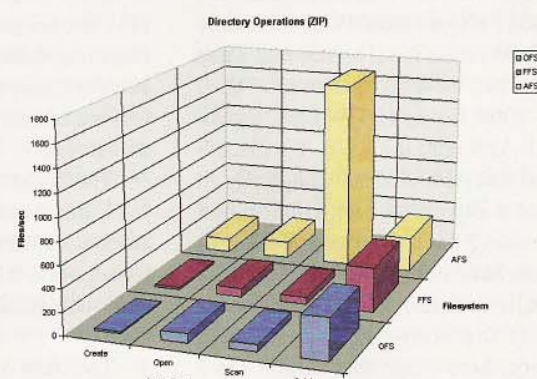
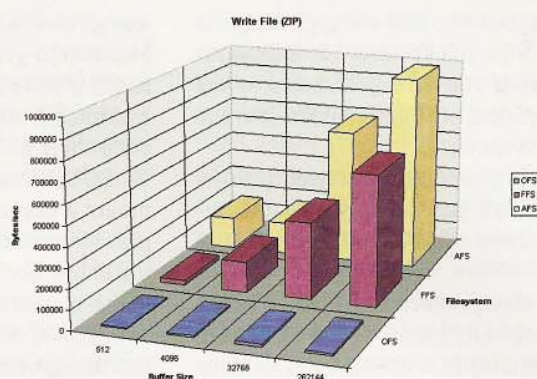
space is there. You can change the RDB size with extra utilities, but this should only be necessary on really small partitions.

In the meantime, my efforts with the nice support folks started to bear fruit - I met with success when using a mountlist! This is fine for a Zip cart - just set up a DOSDriver to mount it automatically every time you start up - but it won't allow a hard drive to autoboot. Back to the drawing board.

Well, I'll leave out the grisly details and rude words that accompanied the process of getting Ami-FileSafe working. You, the reader, can now cut to the chase, and find out the easy way (probably not the only way, but for us it was) to get AFS up and running.

Basically, take your soon-to-be-AFS partition, and prepare it as a standard AmigaDOS FFS partition. If you've already got data on it, that's fine, just leave it as is. You might want to run a disk checker over it to make sure there are no problems with the structure before you begin, and if you defragment it you'll reap the most benefits from AFS at the start. You'll also need at least 5% free space available so AFS can juggle its data properly.

Next, make sure you have installed the utility "FFS2AFS" - if not, pull



out your AFS disk and copy the file to c:. Now, run FFS2AFS on said partition. If you already had data on the partition, it'll get converted to the AFS format.

If your disk was blank to begin with, it'll stay that way, only it'll suddenly be an AFS partition instead of an FFS one. FFS2AFS also performs all changes needed to the RDB short of actually installing the filesystem. The dostype is changed and all ready to go. And, by the way, if your machine crashes mid-conversion all you end up with is a conventional unvalidated FFS partition which should be able to repair itself as normal. They did when we tried it, anyway.

Next, fire up HDToolbox, and install AFS onto the RDB. We discovered that AFS will now magically fit onto a Zip cart which HDToolbox wouldn't have a bar of before. For most hard drives (all but the really small) there should be no problem.

If the above strategy doesn't work, here's one that might. On a machine with a GVP controller whose HDToolbox swore blind that there was no room on the RDB to install the Ami-FileSafe filesystem, even after deleting FastFilesystem from the RDB, this was the eventual solution.

Unprep the drive from Expert-Prep (the GVP SCSI utility). This nukes the RDB completely. Now run HDToolbox and go to Partition Drive. After setting up the single full-disk partition you want instead of the two half disk partitions HDToolbox always thinks are a great idea, go to the Add/Update File Systems screen. FFS will be listed there, ready to write to the RDB; delete it and add AFS as described in the AFS manual. While you're doing the partitioning thang, crank the buffers up to 300 if you've got the RAM to spare, but don't set AFS as the actual disk filesystem - just make sure it's in the to-be-written-to-RDB list. Now save the changes to the drive, which should work, and not leave you with an illegible drive. DOS-format the drive, FFS2AFS it, reboot and rejoice.

We eventually discovered the source of many of the problems. It

was all to do with the program SCSI-Mounter, a great utility that's very handy if you use removable cartridges a lot, but unfortunately not 100% compatible with AFS.

SCSIMounter is supposed to mount a device from the RDB, bypassing mountlists and other annoying things like that. Unfortunately, it seems to ignore the AFS dostype, and AmigaDOS never gets the message that the partition is valid, or indeed, a partition at all.

Owning a SquirrelSCSI controller added to the problem, as you can only access your SCSI drives after mounting them manually (they won't autoconfigure) - and SCSI-Mounter was the easiest way to do this; result, no success.

The bottom line is that AFS will work fine from a mountlist, or from autoboot/automount if your controller supports it (most do). It WON'T work with SCSI-Mounter, at least not yet.

The only other problem was the RDB space problem - for which see the above workaround. All that then remains is to reboot, and AFS will now function perfectly, autobooting and automounting as normal. Here endeth the lesson.

If, from this, you get the impression that getting AFS running is not for the absolute beginner, you're right. But one of the above strategies should work for you, so you should only need a middling level of expertise and some persistence, at worst. We've done the painful fiddling for you.

The Magic Behind AFS

So just what makes AFS so great that I would put myself through the above torment?

Well, AFS never gets invalidated, and is virtually impossible to damage. Even if you switch off your computer during a write session, the worst thing you can expect is the disk to be back the way it was before you started writing.

This is because AFS saves the file data to the disk during a write, but keeps track of the directory changes in memory. In addition, data is only

written to blank blocks, so you lose no existing data even if you reboot while overwriting a file. When there is a lull in disk activity, AFS writes the directory, double buffering this as well.

Not content to just go on hearsay, we posed the question "So can we break it?"

Trying consisted of rudely unplugging our Zip drive while copying a large directory - the results were as expected; no corrupt blocks, and the disk just the same as it had been before the write session began.

This ruggedness and the more efficient disk structure puts AFS streets ahead of FFS in fault tolerance, although it does seem theoretically possible to massively invalidate an AFS disk, if something drops the ball at the critical moment when the directory information's being set up. Since there's no disk recovery tools for AFS yet (see below), this unlikely possibility becomes a definite threat, and is really about the only thing besides relatively complex setup that AFS has against it.

AFS is also much faster than FFS; the manual boldly claims it is twice as fast on reads and writes, and 10-20 times faster on directory operations (three times faster than Commodore's DirCacheFilesystem for directory scan).

These numbers seem pretty wild, but they're not entirely inaccurate.

Makin' Numbers

Any article of this nature invites the reviewer to throw reams and reams of numbers at the reader, so this is precisely what I'll do.

To make our magic numbers well dusted off the old faithful DiskSpeed 4.2 and let 'er rip.

The first batch of numbers were darn impressive, so we made some more. That was a bad idea, as the second lot of numbers were all different and confused the heck out of us. DiskSpeed is normally a very reliable, highly repeatable tester, but something in AFS can throw the transfer rate results off completely on some drives, with the numbers swinging essentially randomly from 150k/S to

5.5Mb/S from test to test. We eventually managed to get some repeatable, plausible transfer rate figures for Zip disks, but we're still not quite sure of their accuracy.

To save me typing dozens of numbers, I'll just say check out the graphs for the grisly details, but in summary - its true! AFS does perform much better than FFS.

Bear in mind that these numbers are benchmarks, and in the real world the user will notice a far more marked difference in performance, particularly with directory operations, as they're all cached. We've got used to directory reads never hitting the disk at all.

AFS is a lovely filesystem for Zip disks. Zip drives have a lousy seek speed, but reasonable sustained transfer rates; AFS does the best Zip caching job we've ever seen, making them far, far faster than FFS. By the way, NEVER format a Zip disk with OFS, except as a prank; the miserable seek speed will make disk access paralytically slow.

The Package

There are actually two versions of AFS available, the User version and the Pro version. The only difference between the two is that the user version will only support partitions of up to 650Mb, and only works on one drive - so a 1.5Gb drive with three 500Mb partitions is fine, but two 500Mb drives or one 1Gb partition are not. The Pro version lacks these limits, and also works with Multi-UserFileSystem. Our review copy was the pro version, but we've only been able to look at the user version manual. No matter.

All up the package isn't bad, but it could be better. Its small, so there's only one disk, the manual, and a piece of foam for you to love and cherish, all in a box whose design appears to have been brought to you by Cheesy-Corp.

The disk contains all of the versions of AFS, in our case the floppy, hard drive and multi-user versions. There are also optimised 68020+ versions.

Installation is simple and easy, yet

ugly, thanks to no use being made of the wonderful Installer utility. It would seem to be simpler just to have one installer script than the six single scripts. Nonetheless, the install scripts only need to be simple, and they do work.

Also bundled on the disk are various utilities to do with AFS. There's the FFS2AFS program for converting disks over, as well as some disk checking tools that work with AFS.

One big hole here is a lack of a comprehensive AFS disk utility. The latest (commercial) version of DiskSalv is supposed to support AFS, but you'll have to pay extra for it, and I for one have serious reservations about using a filesystem when I have no tools to repair it should it go spong. AFS is safer, but not indestructible, and the "fixit" utility supplied with AFS can perform very rudimentary repairs only. If your drive has a serious hardware problem - which is rare, but certainly not unknown - all of the data on an AFS disk is unrecoverable with anything but that special DiskSalv version. So make regular backups.

If you are worried about the lack of a defrag tool in DiskSalv, you needn't, because AFS will never fragment a file unless it absolutely has to, and will even defrag a file if it can.

AFS also has a built-in undelete feature; the last 31 files deleted are stored in an invisible directory called ".deldir". All you need do is manually change to this directory and copy the files you want to undelete elsewhere.

Copying them back to the same disk is NOT recommended, because the space they occupied is now available for use and so the nose end of the file being undeleted can overwrite its own tail, or another deleted file you want. Files are assigned a version number to avoid confusion arising from duplicate names.

The system works like an invisible trashcan which is automatically updated and emptied. Nice, unless you just deleted 32 files, and file number one is the one you want back.

For floppy users, the public domain utility MultiFileSystem (MFS)

is included as a bonus, which allows the user to consolidate PC0:, AF0:, and any other floppy drive mountlists into DF0:, meaning that the you never need worry about which device to address when dealing with exotic floppies. I do have a few gripes concerning the documentation. I read an independent review of AFS where the author expressed some concerns about entrusting his data to a 12-page manual, and I agree completely with this. The AFS manual is very brief, and deals mainly with installation and with proclaiming the virtues of AFS and the shortcomings of FFS as loudly as possible. It is informative in places, but could be much better. The disk-fixing utility isn't mentioned at all.

To be fair, the manual we received was for the User version, and not the Pro, but it was still a bit thin.

Much more useful documentation can be found on the disk in the form of readme files; perhaps this information could be incorporated into the paper manual in future releases.

Sum Up Time

At the end of the day I'd have to give AFS the thumbs up. Its shortcomings and oddities are more than made up for by the large increase in speed and reliability that it brings. For 90% of users out there, installing AFS should be no problem, and there will be practically no difference in using it as you would FFS.

Once the problem with SCSIMounter is fixed (which I suspect lies more with SCSIMounter than with AFS) another 5% of users should also have no problem, and the remainder will just have to clown around with their prep program and HDToolbox until they get the right combination of incantations.

The FFS2AFS program can make the transition from FFS to AFS completely painless, so all we need now are more disk utilities supporting AFS, and a more informative manual.

Once I have a good disk utility, I'll have no hesitation in using AFS permanently. For more information call Natdisc on (02) 544 1874.

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